

## THE HATTIAN-HITTITE FOUNDATION RITUALS FROM ORTAKÖY (I) Fragments to CTH 725 “*Rituel bilingue de consécration d’un temple*”<sup>\*</sup>

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### I. INTRODUCTION

The question of whether Hattian written documents would have existed and been deposited in the archives of other Hittite centers outside the capital Boğazköy-Ḫattuša has now been positively answered by the excavations in Ortaköy-Šapinuwa which have been carried out since 1990. Indeed, among the rich tablet finds discovered there are a number of fragments in Hattian along with texts composed in other non-Hittite languages like Akkadian and Hurrian. According to information furnished from the religious documents from Boğazköy, Šapinuwa had never been a Hattian cult center, as opposed to traditionally Hattian cities like Arinna, Zippalanda, Karahna, Tawiniya and Nerik. Šapinuwa displayed rather a strong Hurrian cult influence, at least at the time when the royal archives were established in this city, as we may perceive from the religious texts from Ortaköy. The excavators of Ortaköy have often expressed their belief that Šapinuwa was a second capital of the Hittites, or a royal residence during the reign of the Middle Hittite king Tuthaliya III (ca. 1400–1380 B.C.), who seems to have lived there a long time<sup>1</sup>. The Boğazköy documents supply enough information for the common theory that the religious and cultural elements from the Hurrian (Kizzuwatnan) milieu began to increase in the Hittite society considerably during the reign of the Middle Hittite king Tuthaliya I/II and his queen Nikalmati. This new tradition was continued under the successors of Tuthaliya I/II by his son Arnuwanda I and his grandson Tuthaliya III. Thus, the predominant Hurrian cult features at Ortaköy-Šapinuwa, which obviously flourished for the first time during the Middle Hittite Kingdom, may find a reliable historical connection with the person of Tuthaliya III.

The work on the Ortaköy epigraphic finds began in 1990. After the tablets were cleaned, some of them were provisionally photographed, and the first transliterations of the texts were made. At the same time, the well preserved tablets are being copied, and this work is being continued by a team at the Faculty of Languages, History and Geography in Ankara. The agreement of our Ankara-Chicago co-operation in the research

<sup>\*</sup> This article is the second result of the authors’ Ankara-Chicago co-operation, following “*A Practical Vocabulary from Ortaköy*”, which appeared in FsHoffner (2003) 349-365.

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<sup>1</sup> See A. Süel, in: ICH 3 (1998) 555 ff.; Türkiye Bilimler Akademisi Arkeoloji Dergisi (TÜBA-AR) 1 (1998) 47; M. Süel, ICH 3, 564.

on the Ortaköy texts was made first in January 1998, primarily aiming for intensive studies on the multi-lingual documents in Hattian, Akkadian and Sumerian. In June 1998, in a one-month period in Ankara the authors worked together and examined the first transliterations of about 1000 texts made between 1990 and 1997. Among them we found about 40 fragments in Hattian and in Hittite from a Hattian milieu, and these were selected for further research. Since then, some duplicates and parallel texts of these Ortaköy fragments have been found, and the textual classifications of the documents have been made. Our work in 1999 was conducted during April and May. We spent the month of April in Ankara selecting texts for further research. At this time, a further 1000 text transliterations were re-checked, and a few more fragments were identified as Hattian texts. In May, accompanied by other members of the Ortaköy-Team, we went to Çorum and began to take pictures of the selected tablets, primarily the Hattian and vocabulary texts, which had been deposited at the Museum of Çorum. During this work some 15 small fragments were identified as joins and glued together in order to gain larger and more complete texts. These have been compiled to represent about 50 fragments in total, most belonging to the “foundation rituals” (see below). Our work in 2000 was conducted during May and June. We spent most of the time in Çorum and continued to take pictures of the selected tablets, again Hattian-Hittite foundation rituals and additionally Hittite bird oracle texts. During this period *ca.* 400 pictures were taken. This completed our work at the Museum of Çorum<sup>2</sup>.

Our Ankara-Chicago cooperation was expected to be fruitful for Ancient Anatolian lexical studies. Indeed, the results that we have achieved to date are encouraging. The activities of the season 1999 were briefly reported<sup>3</sup> and read as a paper at the 4<sup>th</sup> International Congress of Hittitology in Würzburg (Germany) in October 1999<sup>4</sup>. The first results of the epigraphic studies, however, were officially released in 2003 as a joint article in a *Festschrift* (see the introductory footnote). As part of the results of the epigraphic studies between 1998–2000, we were preparing three other joint articles for publication, including the present one, with the title “*The Hattian-Hittite Foundation Rituals from Ortaköy (I-III)*”. This way we continue to make Ortaköy tablets accessible to the community of scholars in the humanities. The Hattian-Hittite bilingual texts from Ortaköy have revealed many lexical items that had been unknown. We have learned, for example, the Hattian words for “ox (= *milup*), horn (= *kaiš*), pedestal (= *wa<sub>a</sub>*”, and the Hittite words for plate/slab (= *išparuzzi*) and tin (= *arzili*) along with some other designations significant for the cultural history of Ancient Anatolia.

So far, the number of Hattian texts and their Hittite translations unearthed in Ortaköy amounts to 43 fragments, chiefly composed in bilingual form. Almost all of them belong to the text genre “(Hattian) foundation rituals” known also from Boğazköy as

<sup>2</sup> In this occasion, we want to express our thanks to the director İsmet Ediz and to his staff for their assistance on our work on the Ortaköy tablets at the Museum of Çorum in May 1999 and again in June 2000.

<sup>3</sup> O. Soysal, “*Epigraphical Studies from Hittite Sapinuwa*” in ARIT Newsletter 27 (Spring 1999) 7.

<sup>4</sup> O. Soysal, “*Hattice Araştırmalarında Son Durum/Zum gegenwärtigen Stand der hattischen Studien*” in: ICH 4 (= StBoT 45; 2001) 649-651.

three different compositions. Most of the fragments correspond to E. Laroche, CTH nr. 726 “*rituel bilingue de fondation d’un temple ou d’un palais*” (20 pieces), others to CTH nr. 725 “*rituel bilingue de consécration d’un temple*” (14 pieces) and to CTH nr. 414 “*rituel de fondation d’un temple (archaïsant)*” (9 pieces). There are also some other tiny Hittite fragments of foundation rituals whose CTH affiliation cannot be determined with certainty. The fragments in question came to light mostly during the excavation season of 1990 in various rooms of the monumental Building “A”,<sup>5</sup> but a few of them were discovered later in 1991 and 1994. According to the current finds here, Hattian religious compositions other than foundation rituals, e.g., prayers, invocations and praises for Hattian deities, benedictions for the royal couple, incantations, purification and healing rituals with mythological passages, festival descriptions, litanies and choral songs, are not represented in the Ortaköy archives. The statistical fact that the Hattian written materials in Ortaköy appear only to be these foundation rituals, could be explained by the historical circumstances around Tuḫaliya III. When he moved to Šapinuwa for some reason, either he built a new palace and temple(s), or he renewed the old ones in this city as part of a restoration program. The available foundation rituals from Ortaköy may very likely be connected to such architectural activities, since these texts were composed for the purposes which are expressed by the phrases “*when the king builds new houses somewhere*” (CTH nr. 726) and “*when they install a door bolt in a new palace*” (CTH nr. 725). Thus, the foundation rituals from Ortaköy must be regarded as witnesses of events current under Tuḫaliya III, rather than as literary creations of the native cult of this city<sup>6</sup>. This conclusion, of course, presupposes that the entire royal archives of Ortaköy are to be attributed to the time of this Hittite ruler since, according to the textual evidence so far, no other king’s name except for Tašmišarri (= Tuḫaliya III) is attested in the available written documents.

The Boğazköy versions of the Hattian foundation rituals and the Ortaköy fragments – despite their small sizes and mutilated shapes – are reciprocal restoring each other in their context, and this has enabled us to gain a considerable increase in the textual contents of these compositions. It is to be observed that the Ortaköy versions feature more accurate and reliable texts than those from Boğazköy, especially in the use of Hattian. The Hattian-Hittite compositions from Ortaköy were issued in multiple copies and prepared in the manner of bilinguals where the Hattian portion is placed on the left column (obv. I/rev. IV) and its Hittite counterpart on the right column (obv. II/rev. III) of the tablet. Even if not always typical, the script and ductus characteristics of the documents are mainly associated with the “Middle Hittite” writing tradition. Considering the Hittite period when Tuḫaliya III lived and these documents were created (ca. 1400 B.C.), it would be reasonable to label them more precisely as “Late Middle Hittite”.

<sup>5</sup> See the list of find spots given below.

<sup>6</sup> In this connection, the archeological remarks of M. Süel, ICH 3, 560 f., are of particular importance: the monumental structure called “Building A” (a palace or an office) lying at a dominant point on the plateau and having a location with an impressive view, may only have been built in later periods after the city’s foundation, erected on the debris of other structures.

## II. A GENERAL VIEW OF FRAGMENTS OF CTH 725 AND THE TEXT ENSEMBLE

CTH 725 “*Rituel bilingue de consécration d’un temple*”, the first part of our study, was treated by H.-S. Schuster in an extensive monograph, published in 1974, in which he dealt with the then available Boğazköy versions of this composition<sup>7</sup>. Since H.-S. Schuster, the text ensemble of CTH 725 has been slightly extended as the following text scheme illustrates:

- A.** KUB 2.2 + KUB 48.1 (II 37-IV 23) (NS)<sup>8</sup>
- B.** KBo 7.43 (NS)
- C.** KBo 19.162 (MS)
- D.** KBo 21.110 (NS)
- E.** KUB 9.33 + KBo 37.7 (II 1’-8’) (NS)
- F.** KUB 48.3 (LNS)
- G.** KUB 48.6 (NS)
- H.** KBo 37.8 (NS)
- I.** KUB 48.2 (MS)
- J.** 312/u (MS)<sup>9</sup>

The 14 individual Ortaköy fragments to CTH 725 and their find spots are as follows (listed by find numbers):

- 1)** Or. 90/132 (Building A, Room 1)
- 2)** Or. 90/292 (Building A, Room 1)
- 3)** Or. 90/401 (Building A, Room 1)
- 4)** Or. 90/422 (Building A, Room 1)
- 5)** Or. 90/995 (Building A, Room 5)
- 6)** Or. 90/1010 (Building A, Room 5)
- 7)** Or. 90/1067 (Building A, Room 6)
- 8)** Or. 90/1147 (Building A, Room 5)
- 9)** Or. 90/1362 (Building A, Room 5)
- 10)** Or. 90/1690 (Building A, Room 5)
- 11)** Or. 90/1750 (Building A, Room 9)
- 12)** Or. 90/1771 (Building A, Room 5)
- 13)** Or. 90/1839 (Building A, Room 13)
- 14)** Or. 91/113 (from the dump of 1990 excavation)

After joining the pieces and critical examination of the fragments’ contents they can now be re-arranged as follows:

<sup>7</sup> *Die hattisch-hethitischen Bilinguen*. I. Einleitung, Texte und Kommentar. Teil 1 (DMOA 17); with previous literature.

<sup>8</sup> The dating of the fragments is based on their script only. On the possible “Old Hittite” origin of the composition cf. O. Soysal, in: FsPopko (2002) 330 w. n. 41. For the ordering of the fragments to CTH 725 within the text ensemble we prefer to follow a slightly different numbering than given by *Catalog of Hittite Texts* in: B. J. Collins, *Hittite Home Page* ([www.asor.org/HITTITE/HittiteHP.html](http://www.asor.org/HITTITE/HittiteHP.html)) and by S. Košak, *Konkordanz der hethitischen Texte* in: *Hethitologie Portal Mainz* ([www.hethiter.net](http://www.hethiter.net) or [www.orient.uni-wuerzburg.de](http://www.orient.uni-wuerzburg.de)).

<sup>9</sup> For this newly assigned piece see S. Košak, *Konkordanz der hethitischen Texte* sub nr. 725.J.



- 1) Or. 90/401
- 2) Or. 90/1147
- 3) Or. 90/1067
- 4) Or. 90/1839 + Or. 90/1771 + Or. 91/113
- 5) Or. 90/1690
- 6) Or. 90/1362
- 7) Or. 90/132 + Or. 90/292 (+) Or. 90/422
- 8) Or. 90/1010
- 9) Or. 90/995 + Or. 90/1750

None of the Ortaköy fragments of CTH 725 exhibit the form of an interlinear bilingual text as seen in KUB 2.2 + KUB 48.1 or KBo 37.7 + KUB 9.33 from Boğazköy<sup>10</sup>. Except for the joined pieces, it is impossible to determine the physical affiliation of the fragments to one another, or even if they belong to the same tablet, because most of these have survived in very small size, or were partially burnt by a intense fire. The situation became even more difficult when examination of the texts revealed the fact that the composition CTH 725 existed in the Ortaköy archives in at least two or three copies. The following duplicates are found within the Ortaköy fragments:

Ortaköy nr. 4 I 2'-5' // Ortaköy nr. 5 I 1'-5'  
 Ortaköy nr. 6 II 2'-6' // Ortaköy nr. 7 II 4'-7'  
 Ortaköy nr. 7 III 3-8 // Ortaköy nr. 9 II 2'-7'

Further possible duplicate should be noted Ortaköy nr. 1 I 8-9 // Ortaköy nr. 3 I 2'-3'. Here however, one also suspects a possible indirect join between both fragments, if the words in lines I 8, 9 of nr. 1 and lines I 2', 3' of nr. 3 overlap (see individual remarks on these fragments). Other fragments may be supposed to be parts of the same tablet and contain portions with counterparts in both languages. They are cited here with their line numbers, however, without claiming any certainty:

Ortaköy nr. 1 I 5-9 (Hattian) → Ortaköy nr. 2 II 1'-5' (Hittite)  
 Ortaköy nr. 8 IV 1'-3' (Hattian) → Ortaköy nr. 9 II 6'-8' (Hittite)

On the other hand, however, a critical comparison of the counterparts in the Hattian and Hittite portions makes it clear that some fragments in both languages obviously do not go back to the same tablet due to their different line numbers and the variable distribution of the words within consecutive lines. They can be exemplified by the following cases (not matching line numbers of Hittite portions translating Hattian ones are underlined):

Ortaköy nr. 4 I (Hattian) § 2' (three lines) and § 3' (two lines)  
 against Ortaköy nr. 6 II (Hittite) § 2' (four lines) and § 3' (three lines)  
 Ortaköy nr. 4 I (Hattian) § 2' (three lines) and § 3' (two lines)  
 against Ortaköy nr. 7 II (Hittite) § 2' (three lines) and § 3' (four lines)  
 Ortaköy nr. 8 IV (Hattian) § 1' (three lines) and § 2' (two lines)  
 against Ortaköy nr. 7 III (Hittite) § 2 (three lines) and § 3 (four lines).

<sup>10</sup> On this see H.-S. Schuster, HHB I 65; C. Kühne, ZA 70 (1980) 95.

## III. TEXT EDITIONS

## 1) Or. 90/401

Obv. (Prologue // KUB 2.2 + KUB 48.1 II 37-39)

§ 1 1 *ma-a-an I-NA É.GA[L-LIM*2 *a-pí-ia-ak-ku* [

Obv. I (Hittian portion // KUB 2.2 + KUB 48.1 II 40-42, 45-47)

§ 2 3 *ya<sub>a</sub>-a-aš-ḫa-ap-ma* <sup>a)</sup> *eš-yu<sub>u</sub>-u-[ur* <sup>b)</sup>4 *šu-ú-ya<sub>a</sub>* <sup>URU</sup> *Ḫa-at-tu-u[š*5 *šu-ú-ya<sub>a</sub> ta-ba-ar-n[a*6 *ka-a-at-te* <sup>c)</sup> [§ 3 7 *an-na eš-ka-a-ḫé-er-pí ta-[ba-ar-na-an* <sup>d)</sup>8 *le-e-ya<sub>a</sub>-e-el* <sup>e)</sup> *ni-i-p[u-pé-e*9 *[z] [i-i-iš pa-la] i<sub>a</sub>-a(?) i<sub>a</sub> <sup>f)</sup> i-[ma-al-ḫi-ip*

Remainder and reverse not preserved.

Textual apparatus: **a)** A II 40 and C obv. 4: *ya<sub>a</sub>-aš-ḫa-ap-ma* **b)** A II 40: *eš-yu<sub>u</sub>-ur* **c)** A II 42: *ka-a-at-ti* **d)** C obv. 8: *da-ba-ar-n* **e)** C obv. 9: *le-e-ye<sub>e</sub>-e-el* **f)** A II 47: *ia-a-e*

Remarks: **I 4, 5:** *šu-ú-ya<sub>a</sub>* (HWHT 241, 298, 721 f.) is to be analyzed as *šu-wa<sub>a</sub>*, a transitive *tu*-class verb with initial *š/t* interchange and having the verbal stem *pa / wa<sub>a</sub>* “to place”. This predicate is attested otherwise in the spelling *du-ú-ya<sub>a</sub>* (KBo 37.155 rev. <sup>?</sup> 7’; KUB 28.18 rev. r. col. 4’) and *tu-ú-ya<sub>a</sub>* (KUB 28.40 III 19’). Its Hittite translation is often incorrectly given with *dāir* “they took” instead of *daīr* “they placed”; see remarks on Ortaköy nr. 2 II 1’.

For different interpretations of *šu-ú-ya<sub>a</sub>* see H.-S. Schuster, HHB I 84-85; Chr. Girbal, AoF 29 (2002) 255-256.

**I 8, 9:** The improved readings *ni-i-p[u-pé]-e* and *i-[ma]-al-ḫi-ip* may be feasible, if lines I 8, 9 here overlap with Ortaköy nr. 3 I 2’, 3’.

**I 9:** The predicate *ia-a-ia* (likewise in Boğazköy KBo 19.162 obv.10 and KBo 37.7+ II 3’) stands for *\*ai≈(y)ay≈a* as the counterpart of Hittite *piweni* “we (will/shall) give” in KUB 2.2 + KUB 48.1 II 50. The different spelling of this word as *ia-a-e* in KUB 2.2 + KUB 48.1 II 47 (for *\*ai≈(y)ay≈e*), makes a decision difficult as to which form is the correct rendering. A scribal confusion between the signs “e” and “ia” may also be considered (HWHT 159); cf. the future tense formations (functionally exhortative or volitive) *i-tu-ú-ia* (KUB 28.40 III 16’) and *i-tu-ú-e* (KBo 37.1 I 36) for *\*ai≈n<sup>?</sup>≈tu≈e* “we shall eat/let us eat”.

**2) Or. 90/1147**

Obv. II (Hittite portion // KUB 2.2 + KUB 48.1 II 43-44, 48-50)

- § 1' 1' 𐎒𐎠𐎵 -i-[ir-ma-at <sup>a)</sup>  
 2' LUGAL-u 𐎒𐎠 [   
 § 2' 3' ma-a-n[a-at ta-pa-ri-ia-u-e-ni-ma la-ba-ar-na-aš]  
 4' [L]UGAL-ya-aš [   
 5' [n]a-aš-ši p[i-ú-e-ni  
 6' [ ] Lx] [

Remainder and reverse not preserved.

Textual apparatus: **a)** A II 44: *da-a-ir-ma-at*; I obv. 3': *da-a-ir-m[a-a]t*

Remarks: **II 1'**: The sign after “*da*” is – although very broken – to be identified as “*i*”. Thus the word reads *daīr* “they placed” that is the correct use against mistaken *dāir* “they took” in the Boğazköy versions A II 43, 44 and I obv. 3', apparently due to a confusion between the similar sounding verbs *da-* and *dai-*. The Hattian verbal root *pa/wa<sub>a</sub>* “to place” is attested also in *a-aš-ya<sub>a</sub>* (*aš-ya<sub>a</sub>*) in KBo 37.1 I 41 which is translated in Hittite with *da-a-i-e-e[r]* (KBo 37.1 II 41) and *da-i-e-e[r]* (Or. 90/1335+ II 32) “they placed”. The predicate *ašwa<sub>a</sub>* functionally seems to be the same as *šuwa<sub>a</sub>* discussed in remarks on Ortaköy nr. 1 I 4, 5. The late Middle Hittite form *da-i-e-e[r]* from Ortaköy above would suggest a restoration 𐎒𐎠𐎵 -i-[e-er] for our Ortaköy fragment here too.

**3) Or. 90/1067**

Obv. I (Hattian portion // KUB 2.2 + KUB 48.1 II 46-47, 51-53)

- § 1' 1' ] 𐎶 𐎶<sup>?</sup> 𐎶 [   
 2' ni-i-pu-pé]-e [   
 3' i-ma]-al-ḫi-ip [   
 4' [pí-i-ip i-ša-aḫ ta-aš-te-eḫ-k]a-zi-ia [   
 5' [ú-ra-na te-a-ta-an-na pa-la] pa-še-ez-zi-i[t <sup>a)</sup>  
 6' [ta-aš-te-eḫ-ka-az-zi]-i-ia <sup>b)</sup> [

Remainder and reverse not preserved.

Textual apparatus: **a)** C obv. 13: *pa-še-ez-zi-i-it* **b)** C obv. 13: *ta-aš-te-eḫ-ka-zi-i[a]*; H l. col. 4': [...(-)ka-z]i-ia

Remarks: **I 2', 3'**: The advanced readings *ni-i-p[u-pé]-e* and *i-[ma]-al-ḫi-ip* are feasible, if the lines I 2', 3' here may overlap with Ortaköy nr. 1 I 8, 9.

Obv. I (Hittian portion // KUB 2.2 + KUB 48.1 II 57-60,  
III 3-6, 10-11, 14-16, 19-20, 23-24, 26)

- Remainder not preserved; reverse is only available on Or. 90/1771.

§ 2'	1'	](.)x <sup>2</sup> GİBİL <sup>2</sup> ú-ę-dq-an-z[i <sup>2</sup>
	2'	<sup>LÚ</sup> a]-kú-ut-tar-ra-aš ke-e' <sup>2</sup> [
	3'	]-x ti-an-zi A-N[A <sup>2</sup>
	4'	] a-aš-šu-u(-)[
	5'	...

Remainder not preserved.

Textual apparatus: **a)** A II 57: *zi-i-a<sup>(l)</sup>-pa* **b)** A II 58: *ua-a-ša-aḫ* **c)** A II 59: *ua-a-z<sup>(l)</sup>-ša-aḫ* **d)** A III 3: *i-ma-al-ḫi-ip-pi* **e)** A III 3: *zi-i-ḫar* **f)** A III 4: *i-ma-al-ḫi-ip* **g)** A III 4: *t[e<sup>(l)</sup>-ua-aš-ši-ne]* **h)** A III 5: *ta-al-ḫi-i-it* **i)** A III 6: *ka-at-te-ia-a-[ia]* **j)** A III 10: *[i] 𒌷š-t𒌷 ar-ra-zi-il-pi* **k)** A III 14: <sup>d</sup>*[Zi-li-pu-r]i-u* (so, not *-re*)-*ḫ-u* as H.-S. Schuster, HHB I 70 and 110, reads; cf. D. Yoshida, BMECCJ 4 [1991] 57 w. n. 14) **l)** A III 15: *ka-at-ti* **m)** A III 16: *ka-a-[h]a-a-an(-)ua-a-šu-it-tu-u 𒄩n* **n)** A III 19 and D obv.

3': *le-e-zu-u-uh* o) A III 19: *le-eš-te-ra-aḫ* p) A III 19: *ba-la* q) A III 20: *bq-lq* r) A III 20: *an-ne-eš* s) A III 20: *ka-a-ḫa-an(-)ṽa-a-šu-id-du-ú-un* t) A III 23: *le-e(-)ú-īt-ta-nu* u) A III 23: *le-e-ez-zi-pí-nā'*; D obv. 7': *[l]e-e-ez-zi-pí-i-na* v) A III 24: *ka-a-ḫa-an(-)ṽa-a-šu-id-du-un*; D obv. 8': *[k]a-ḫa-an-ṽa-a-šu-id-du-ú-un* w) A III 26: *pí-iz-[z]i-pa-a[š'-ḫa-a]p*; D obv. 9': *(-)pí-iz-zi-i ṽa-aš-ḫa-a[p]*

Remarks: **I 1'**: The Middle Hittite spelling *zi-i-iš-pa* here and also in KBo 19.162 obv.14 exhibits the correct form against the New Hittite *zi-i-ja-pa* in KUB 2.2 + KUB 48.1 II 57.

**I 5'**: The Middle Hittite writings *zu-ú-ṽa-ši-ne* here, *zu-ṽ[ā-aš-ši-ne]* in Ortaköy nr. 5 I 2' and *zu-ṽ[ā-aš'-š'] [i'-ne]* in KBo 19.162 obv.16 present the correct form, against the New Hittite *te-ṽa-aš-ši-ne* in KUB 2.2 + KUB 48.1 II 59. This may be a result of scribal confusion between the signs “zu” and “te” while copying from a poorly preserved *Vorlage*. A further late Middle Hittite occurrence *zu-ú-ṽa-ši-i-ni* is known from Or. 90/325 IV 3' (HWHT 957). The Hattian *zuwaš(š)ine* is translated into Hittite with <sup>GIS</sup>*ḫittas(a)-*; see remarks on Ortaköy nr. 6 II 2'.

**I 6', 8'**: The oblique case *tabarna≈n* with dative function in I 8' is grammatically correct unlike *tabarna* in I 6' in which the ending *≈n* is dropped out.

The spelling *kat-te-e-ia-a-ia* is haplology for the optative *\*katte te≈yay≈a* (= Hitt. *labarnai LUGAL-i piyandu*) “let them give to the king!”; see HWHT 139, 549.

**I 7'**: The sign after *wā<sub>a</sub>šah* is to be read without hesitation as “ku”; thus one has to reconstruct the word *ku[ḫziḫerta]* at the end of the line. This, however, may conflict with *wa<sub>a</sub>ḫziḫerta* in KUB 2.2 + KUB 48.1 II 60 with its Hittite translation *munandu* “let them hide” (*ibid.* III 2). The only explanation for this unique case may be again scribal confusion between the similar signs “ma” and “ku” (HWHT 160), so that the faulty Ortaköy form *kuḫziḫerta* stands for *\*maḫziḫerta* as phonetic variation of *wa<sub>a</sub>ḫziḫerta*. The interchange *m ~ w<sub>x</sub>* is peculiar to Hattian (HWHT 165), and this problematic word has already been discussed in HWHT 141, 566 f., where the form *wa<sub>a</sub>ḫziḫerta* is analyzed as *\*ma \*ḫa≈zi≈her≈ta* or, less probably, as *\*ma \*an≈zi≈her≈ta* (*ibid.* 141, 265, 880).

**I 9'**: This Ortaköy occurrence is now a full confirmation for *a-an-ta-ḫa-an* in KUB 2.2 + KUB 48.1 III 14 against the alternative reading *a-an-du-ḫa-an*; see already HWHT 364.

**I 9'**: It is striking that here appears <sup>d</sup>*Šu-li-i-in-k[at'-...]* instead of <sup>d</sup>*[Zi-li-pu-r]i-u* as we encounter the latter in KUB 2.2 + KUB 48.1 III 14. The Hittite translation of this passage in Ortaköy nr. 6 II 8', however, mentions [<sup>d</sup>Z] ṽ[ā] -l ṽ[ā] -p[ā] [*u-ra-aš*]. The frequent alternations between two divine proper names in these foundation rituals are surprising, but may be explained to some extent by the religious fact that Zilipuri and Šulinkatti (= <sup>d</sup>U.GUR) are interchangeable in some divine lists as well. Zilipuri may have been gradually replaced in his functions by <sup>d</sup>U.GUR in the New Hittite times as D. Yoshida, BMECCJ 4, 58-61, has demonstrated; cf. now also F. P. Daddi, in: *Offizielle Religion* (2004) 359.

**I 10'**: Although incomplete, the form *le-e-uz-zi(-)x(-)[...]* may allow us to reject the reading *le-e-ṽ[ā-a'-el']* “his house” for KUB 2.2 + KUB 48.1 III 15 as proposed by H.-S. Schuster, HHB I 70 and 110. This word is to be analyzed as nominal *le≈uzzi[...]* and

comparable with *ue<sub>e</sub>-e-uz-zi(-)* [...] (= *we<sub>e</sub>uzzi* [...]; KBo 37.14 obv.<sup>?</sup> II 9’); see HWHT 597, 912.

**Rev. 1’-4’:** These lines as part of the epilogue<sup>?</sup> of the composition are not included in the Boğazköy version KUB 2.2 + KUB 48.1, thus they should be a special feature of the present foundation ritual from Ortaköy. The occurrence of the predicate *wedanzi* “they build” and the cult profession <sup>LÚ</sup>*akuttarra-* is pertinent to determine the character and purpose of this Ortaköy version; see also under “IV. Comments on the textual content”.

On the cult profession <sup>LÚ</sup>*a/ekuttara-* cf. most recently J. Klinger, StBoT 37 (1996) 204 (n. 304), 673, 761 “Tränker”; Y. Arıkan, ArAn 7/1 (2004) 23-43, and additionally see J. Puhvel, HED 1 (1984) 266 “drinker, toaster”. In a Hattian-Hittite list of professions in KBo 5.11 I 14, the Hattian equivalent of <sup>LÚ</sup>*ekuttara-* is given as <sup>LÚ</sup>*haggazuel-* which may contain the word *kazue* “cup”, hence the Hattian title means literally “the cup-man” (*ha<sub>e</sub>~kazue<sub>e</sub>~l*; O. Soysal, Kratylos 44 [1999] 164 f.). Since <sup>LÚ</sup>*a/ekuttara-* appears to be a reciting person, and more importantly, the main performer of the foundation ritual in KBo 37.1 (CTH 726), he cannot be a simple beverages provider – as one would expect from the meanings of his titles <sup>LÚ</sup>*a/ekuttara-* (to *a/eku-* “to drink”) and <sup>LÚ</sup>*haggazuel* (to “cup”) in both languages –, but should rather belong to a class of cult officials, possibly a kind of incantation priest who also carries cups with cultic beverages. Thus one may tentatively suggest the title “cupbearer-priest” in consideration of other special (multi-functional<sup>?</sup>) priest class from Hattian milieu like <sup>LÚ</sup>*GALA/LÚ**šahtaril(i)-* “musician-priest”, on which see CHD Š 1 (2002) 10-12; D. Yoshida in: *Priests and Officials* (1999) 242, 245-246 and M. Schuol, *Hethitische Kultmusik* (2004) 161-162. In KBo 24.93 III 25, 29 (// HT 40 obv. 3’, 7’), <sup>LÚ</sup>*akuttara-* stands in close connection with <sup>LÚ</sup>*du* “the man/priest of the Storm god” and <sup>LÚ</sup>*zi/alipuriyatalla-* “the man/priest of Zilipuri”, and this is good evidence for his status as a priest rather than an ordinary cult functionary. Moreover, <sup>LÚ</sup>*ekuttara-* is listed in the above-mentioned text KBo 5.11 I 14 immediately after <sup>LÚ</sup>*zilipuriyatalla-* in line 13. The active involvement of these three priests in foundation rituals of Hattian origin is well-documented, and it will be briefly discussed under “IV. Comments on the textual content”. In the foundation ritual KBo 37.1 rev. 22’ and 29’, <sup>LÚ</sup>*akuttarra* is the person who receives the provisions from the palace, and this matter could be reflected elsewhere in the phrases *MELQĒ*[*T* <sup>LÚ</sup>] *akutar[aš]* in KBo 16.71 obv.<sup>?</sup> (II) 1’ + KBo 20.24 rev. III’ 1’ and <sup>LÚ</sup>*akuttāraš MELQĒ(T)~SÚ*<sup>!</sup> “the ration of <sup>LÚ</sup>*akuttāra*” in the newly edited KBo 45.214 rev. 18’. Noteworthy is the another attestation of <sup>LÚ</sup>*akuttarra* in an unidentified foundation ritual from Ortaköy Or 90/1114:4’ that is written with the faulty spelling [<sup>LÚ</sup>] *a-<<an>>-ku-ut-tar-ra-aš*.



Obv. I (Hittian portion // KUB 2.2 + KUB 48.1 II 58-60, III 3-4)

### Remainder and reverse not

**I 3'**: Alternatively, to be restored as *[ku-u]h-zi-i-* just like in Ortaköy nr. 4 I 7'.

Obv. II (Hittite portion // KUB 2.2 + KUB 48.1 III 7-9, 12-13, 17)

Remainder and reverse not preserved.

Remarks: **II 2'**: The rare lemma <sup>GIŠ</sup>*hiitaš(a)*- occurs only in KUB 2.2 + KUB 48.1 III 8 and, partially preserved, in KBo 37.8 r. col. 9' as equivalent of Hattian *tewaššine* (sic! for *zuwaš(š)ine*), denoting perhaps a wooden part of building, or simply a wooden tool. The origin of this word may be Luwian, since its stem and gender are not well established in Hittite: contrary to the neuter *a*-stem in Boğazköy, we come across an

*s*-stem word [<sup>GIŠ</sup>*hitt*]*aš* in our Ortaköy fragment. However, KUB 2.2 + KUB 48.1 III 1 apparently employs the common gender attributive adjective *idalun* “bad” (sg. acc.) for <sup>GIŠ</sup>*hittašša-*; for an earlier discussion on this see H.-S. Schuster, HHB I 104. The primary form may have been neuter <sup>GIŠ</sup>*hittaš* which is later extended to <sup>GIŠ</sup>*hitašša-* with an *a*-theme vowel, but without experiencing any change in its gender, like neuter *ankiš/ankiša*<sup>SAR</sup> (cf. O. Soysal, in: FsPopko, 334).

**II 4’:** In spite of dative [*la*]*barna* without case indicator *-i* here, the Boğazköy version KUB 2.2 + KUB 48.1 III 9 has the archaic form *labarnai* which obviously goes back to an older *Vorlage*.

**II 6’:** The remnants at the beginning of this line should belong to a noun that is modified by *id[alauwa]* “evil (pl.)”; this noun is missing in the Boğazköy version KUB 2.2 + KUB 48.1 III 12 as well.

**II 7’:** For a restoration of the final word of this line, the older spelling *pí-[an-tu]* should be considered as well; cf. Ortaköy nr. 7 II 5’.

**II 8’:** The divine name here is given as Zilipura instead of Šulinkatti in the Hattian passage of Ortaköy nr. 4 I 9’. On the other hand, this use is in accordance with Zilipura in the Hittite passage of Boğazköy version KUB 2.2 + KUB 48.1 III 17; see remarks on Ortaköy nr. 4 I 9’.

## 7) Or. 90/132 + Or. 90/292 (+) Or. 90/422

Obv. II (Hittite portion // KUB 2.2 + KUB 48.1 III 7-9, 12-13, 17-18, 21-22)

§ 1’	1’	]	x	[
	2’	]	x-x’	[
§ 2’	3’	[SIG <sub>5</sub> -i]n-m[a		
	4’	[SIG] <sub>5</sub> -in <sup>GIŠ</sup> [ <i>hu-im-pa-an</i>		
	5’	[pí]-an- t[u’ <sup>a</sup> ]		
§ 3’	6’	[d]a-an-ku- <i>u</i> [a-i-ma		
	7’	<i>mu-u</i> [n-n] [a-an-du		
	8’	KÁ’-aš-[ma-za-kán		
	9’	<sup>GIŠ</sup> <i>hal</i> -[ma-aš-šu-it-ta-an		
§ 4’	10’	<i>dā-q</i> -[aš-ma-aš-za		
	11’	n[a-aš-ša-an		
	12’	x-[-		
	13’	x’-[-		

Remainder not preserved.

Rev. III (Hittite portion // KUB 2.2 +

KUB 48.1 III 37-39, 42-44, 48-50, 54-56, 58, IV 1-2).<sup>11</sup>

- § 1 1  $\underline{\text{ua-a-tar-na}}\text{-}\underline{\text{aḫ}}^2\text{-}\underline{\text{ḫi}}$   
 2 ] 𐎶𐎶𐎶𐎶 [ 4]- $\underline{\text{aš}}\ \underline{\text{šar-ḫu-li-uš}}$   
 3 [ku-i]š-ša-u[ $\underline{\text{a-za ku-ut-ta-an p}}$ ]- $\underline{\text{a-ḫi-ša-ru}}$   
 4 [mu- $\underline{\text{u}}$ ]- $\underline{\text{a-kán i-[da-lu-uš an-da l]e-e ú-iz-zi}}$   
 5 [i-d]a-a-lu-u[š- $\underline{\text{ua-kán}}^b$  Ú]KU-aš É-ri  
 6 [a]n-da l[e-e ú-iz-zi]  
 § 2 7  $\underline{\text{da-a-aš-ma-za}}^d$ Šu-[ $\underline{\text{li-i}}^2$ -in-kat-ti-iš<sup>e</sup>] L LUGA L [L<sup>2</sup>-[uš]  
 8 Ú-NU-TE<sup>MEŠ</sup> na-at<sup>d</sup> d[a-a-aš  
 9 an-da da-iš<sup>e</sup> x<sup>2</sup>]  
 § 3 10 na-aš-ta a-[aš-š] L u] an-[da tar-ni-eš-ki-id-du]  
 11 i-da-a-la-u-[ $\underline{\text{ua}}^2$ -ma]- L kán<sup>2</sup>] 𐎶 [   
 12  $\underline{\text{d}}^d$ Šu-lī-i[n-kat-ti-iš-ša-an  
 13 zī-ga- $\underline{\text{ua-kán}}$  [  
 § 4 14 Ú IŠ-TU É.DIN 𐎶GIR 𐎶-[LIM  
 15 L 1] [ $\underline{\text{ua-a}}$ ]k-šur Í.ŠA[H  
 Remainder not preserved.

Textual apparatus: **a)** A III 9:  $\underline{\text{pí-i}}[a^2\text{-an-d}]u$  **b)** A III 43:  $\underline{\text{i-da-lu-uš-ua-kán}}$  **c)** A III 48:  $\underline{\text{d}}^d$ Šu-li-in-kat-te-eš **d)** A III 49: inserts  $\underline{\text{ša-ra-a}}$  **e)** A III 49:  $\underline{\text{da-a-iš}}$  **f)** A III 55:  $\underline{\text{i-da-lu-ma-kán}}$

Remarks: **II 5'**: The final broken sign looks like rather “tu” than “du” due to a visible small, slightly impressed *Winkelhaken*.

**II 10'**: Restoration follows the form in KUB 2.2 + KUB 48.1 III 21. The other Boğazköy version KUB 48.3:2' uses  $\underline{\text{d}}[a\text{-a-aš-ma}^1\text{-za}]$ .

**III 1**: Since we have the same form *wātarnahḫi* in this Ortaköy fragment, the emendation *wātarnahḫi*<r> in KUB 2.2 + KUB 48.1 III 37 suggested by H.-S. Schuster, HHB I 131, is now redundant.

**III 3**: This line enables us to restore and meaningfully interpret unintelligible  $\underline{\text{ku-x-x-x}}^2\text{-x}$  (reading after H.-S. Schuster, HHB I 73) in KUB 2.2 + KUB 48.1 III 39 where it should now be read  $\underline{\text{ku-iš-}}[\underline{\text{š}}]\underline{\text{a-u}}[\underline{\text{a}}]\text{-za}$ ; cf. also Ortaköy nr. 9 II 2'. The clauses in KUB 2.2 + KUB 48.1 III 35 (Hatt.) and III 38-39 (Hitt.) should be revised then as follows: Hattian *tūḫul tuwaḫši te~dīp*<sup>1</sup> (error for *kip*) = Hittite  $\underline{\text{4-aš šarḫuliuš kuišša}}\text{-}\underline{\text{wa}}\text{-}\underline{\text{za kuttan paḫšaru}}$  “Let everyone protect/guard the four pillars (and) the wall (of this house)”. A different, and incorrect interpretation of  $\underline{\text{4-aš šarḫuliuš}}$  in this passage is posited by H.-S.

<sup>11</sup> The indirect join between Or. 90/132 + Or. 90/292 and Or. 90/422 on rev. III is supported by the tablet's convexity and rounded corners; see the tablet pictures below.

Schuster, HHB I 73 (“die 4 Brunnen<sup>2</sup>”). For the equation of *tūḫul* = 4-*aš šarḫulius* “four pillars” see HWHT 316, 829.

**III 7:** For the restoration of the name Šulīnkatti compare Ortaköy nrs. 4 I 9’ and 9 II 6’, whereas the plene-writing *-ī-* is proven to be not always necessary; see the writing in III 12 of this fragment.

**III 11:** In the writing of the Hittite word for “bad” here is the preferred pl. nom.-acc. *idālauwa* against sg. *idalu* in KUB 2.2 + KUB 48.1 III 55.

## 8) Or. 90/1010

Rev. IV (Hittian portion // KUB 2.2 + KUB 48.1 III 45-47, 51-52)

§ 1’ 1’ [a-an-tu-uh<sup>d</sup>Šu-li-in-ka]-at-t[i<sup>a</sup>]  
 2’ ...  
 3’ [ka-a-ua<sub>a</sub>-ah-piḫa-lu-ḫa]-lu-u-tu [  
 § 2’ 4’ [ma-al-ḫi-ip-ḫu te-e-ta-ah-šū-ú-u]l a-ša-[ah-pi]  
 5’ [ta-aš-tu-u-ta-šū-u-la<sup>d</sup>Šu-li-i] L<sub>n</sub>] -kat-t[e<sup>b</sup>]  
 § 3’ 6’ ] L<sub>x</sub><sup>2</sup> ] [

Remainder and obverse not preserved.

Textual apparatus: **a)** A III 45: <sup>d</sup>Šu-li-in-kat-ti **b)** A III 52: <sup>d</sup>Šu-li-in-kat-ti

## 9) Or. 90/995 + Or. 90/1750

Obv. II (Hittite portion // KUB 2.2 + KUB 48.1 III 37-39, 42-43, 48-49)

§ 1’ 1’ [an-da-ma-aš-ši-iš-š] Γa-a Γ [n  
 2’ šar-ḫu-l] Γi Γ -uš ku-i[š<sup>2</sup>-ša-ua-za  
 3’ nu-ḫ]a-kán i-d Γa-a Γ -[lu-uš<sup>a</sup>]  
 4’ [le-e ú-iz-z]i i-d-a-a-lu-ḫ[š-ua-kán<sup>b</sup>]  
 5’ [ÚKU-aš É]-ri an-d-a-a L<sub>n</sub>] <sup>c</sup> [  
 § 2’ 6’ [da-a-aš-ma-za<sup>d</sup>Šu-li-i-in-kat-ti-[iš<sup>d</sup>]  
 7’ n]a-at ša-ra-a [  
 8’ ] x<sup>2</sup> [

Remainder not preserved.

Rev. (Ration list // KUB 2.2 + KUB 48.1 IV 6, 8-11)

§ 1’ 1’-2’ (traces of some illegible signs)  
 3’ ] BAPPI<sup>2</sup> x x<sup>2</sup> [  
 4’ 1 GÍ]R URUDU 5 GÍN  
 5’ ma]r-nu-an 1 ḫu-u[p-pár  
 6’ da]-a<sup>2</sup>-i[

Remainder not preserved.

Textual apparatus: **a)** A III 42: *i-dq-lu-uš* **b)** A III 43: *i-da-lu-uš-ya-kán* **c)** A III 43: *an-da* **d)** A III 48: *Šu-li-in-kat-te-eš*

Remarks: **II 2'**: The content of this line makes clear the unintelligible *ku-x-x-x'-x* in KUB 2.2 + KUB 48.1 III 39; see remarks on Ortaköy nr. 7 III 3.

#### IV. COMMENTS ON THE TEXTUAL CONTENT: ON THE TEXTUAL STRUCTURE, AIM AND PERSONNEL OF THE RITUAL

The title “*Rituel bilingue de consécration d'un temple*” applied to nr. 725 in E. Laroche’s catalogue does not exactly fit the content and purpose of KUB 2.2 + KUB 48.1 II 37 - IV 23, since the building in question, mentioned in the prologue of this composition, is a “new palace”. The text synopsis of the main version KUB 2.2 + KUB 48.1 from Boğazköy reads as follows:

**1)** Prologue: *mān INA É.GAL-LIM GIBIL GIŠ<sup>GIŠ</sup>hattalwaš GIŠ-ru tittanuwanzi Û<sup>LÚ</sup>zilipuriyatallaš apiyaku aniyazi ta kē INIM.MEŠ memai* “When they install a door bolt in a new palace, and the *zilipuriyatalla*-man performs (a rite) there and he speaks these words” (KUB 2.2 + KUB 48.1 II 37-39)

**2)** Recitation: Hattian text with its translation into Hittite (II 40 - III 58)

**3)** List of provisions which are handed over to the *zilipuriyatalla*-man.

**a)** Introduction: *Û IŠTU É.DINGIR-LIM kī dāi* “and he takes these from the temple” (IV 1)

**b)** List of items (IV 1-10)

**c)** Conclusion: *kī~ma Û<sup>LÚ</sup>zilipuriyatalla [dāi]* “and the *zilipuriyatalla*-man [takes] (all) these” (IV 11)

**4)** Colophon: DUB.1.KAM *QATI mān ANA É.GAL-LIM GIBIL hattalwaš GIŠ-ru tittanuwanzi nu Û<sup>LÚ</sup>zilipuriyatallaš kē uddār hattili memai* “One tablet, complete: When they install a door bolt for a new palace, and the *zilipuriyatalla*-man speaks these words in Hattian” (IV 12-15)

**5)** Rite regulations: (IV 16-23).

The Ortaköy versions of CTH 725 bear a close resemblance to those from Boğazköy except for slight variations in word spellings (as indicated in textual apparatus) and some differences in tablet appearances such as the addition or omission of paragraph strokes and varied line numbers per paragraph due to tablet’s width. Even the provision lists (Ortaköy nr. 7 III 14-15 and nr. 9 rev. 3'-5'), so far as preserved, resemble that in KUB 2.2+ (IV 1-2, 6-10) as well. The only text passage diverging from the Boğazköy version is the reverse of Ortaköy nr. 4 which is preserved in four partly broken lines. This section is not present in any Boğazköy copy, so that its placement within the whole composition is problematic. In any case, it should be placed somewhere (immediately<sup>3</sup>) after the paragraph with the provision list. If the phrase *wedanz[i]* “they build” in line 1' does indeed refer to the prime concern of this ritual, then Ortaköy nr. 4 may deal with construction work different from “installing a door bolt” (*hattalwaš GIŠ-ru tittanu-*), contrary to the Boğazköy version. However, the direct object of the act *wedanz[i]*, perhaps a new structure, is not preserved. Another peculiarity of Ortaköy nr. 4 is the

mention of [<sup>LÚ</sup>a]kuttarra- in line 2'; this profession is not attested in the Boğazköy version. Although the introductory lines obv. 1-2 of Ortaköy nr. 1 generally match KUB 2.2 II 37-39, the relevant words indicating the direct object of the sentence and giving the name of the structure in question, are broken away. Thus, the main "architectural" purpose of the Ortaköy versions of CTH 725 cannot be named with certainty yet.

Nor can the responsible cult attendant for the foundation rituals CTH 725 from Ortaköy be determined. The passages where the mention of this priest is expected, Ortaköy nr. 1 obv. 1 (as rite performer and reciter he may be situated in the end of the line) and nr. 9 rev. 6' (as provisions receiver he may be placed before [d]āi "takes") are not fully preserved. Nevertheless, the aforementioned <sup>LÚ</sup>akuttarra in Ortaköy nr. 4 rev. 2' could be relevant in this matter. In the Boğazköy version KUB 2.2+ <sup>LÚ</sup>zilupuriyatalla<sup>12</sup> appears to be in charge of the entire ritual process. As already pointed out in the remarks on Ortaköy nr. 4 rev. 1'-4', both professions are closely related<sup>13</sup>, so that we may assume that at least the ritual in Ortaköy nr. 4 is to some extent ascribed to <sup>LÚ</sup>akuttarra, which corresponds to his colleague <sup>LÚ</sup>zilupuriyatalla in the Boğazköy version. The following comparative table provides a list of the appearances of the three main performers <sup>LÚ</sup>akuttarra, <sup>LÚ</sup>zilupuriyatalla and LÚ <sup>d</sup>ISKUR in the Hattian foundation rituals CTH 725 and 726 according to both the Boğazköy and Ortaköy versions:

	<u>performer of rite</u>	<u>conjurer/reciter</u>	<u>receiver of provisions</u>
<b>I) CTH 725</b>			
<b>a) Boğazköy</b>			
1) KUB 2.2+ (NS)	<sup>LÚ</sup> zilupuriyatalla (II 38-39)	<sup>LÚ</sup> zilupuriyatalla (II 38-39, IV 14-15)	<sup>LÚ</sup> zilupuriyatalla (IV 11)
2) KBo 7.43 (NS)	[...]	<sup>LÚ</sup> zilupuriyatalla (I. 3'-4')	[...]
<b>b) Ortaköy</b>			
1) Nr. 4 (MS)	<sup>LÚ</sup> akuttarra(?) (rev. 2')	[?]	[?]
<b>II) CTH 726</b>			
<b>a) Boğazköy</b>			
1) KBo 37.1 (NS)	<sup>LÚ</sup> akuttarra (obv. 2, rev. 30')	<sup>LÚ</sup> akuttarra (obv. 2)	<sup>LÚ</sup> akuttarra (rev. 22', 29')
2) KUB 28.87+ (MS)	[...]	LÚ <sup>d</sup> ISKUR (obv. 7')	LÚ <sup>d</sup> ISKUR (rev. 9')
<b>b) Ortaköy</b>			
1) Nrs. 1 and 3 (MS)	<sup>LÚ</sup> akuttarra (nr. 1 obv. 2)	<sup>LÚ</sup> akuttarra, LÚ <sup>d</sup> ISKUR (nr. 1 obv. 2; nr. 3 III 5')	LÚ <sup>d</sup> ISKUR (nr. 1 rev. 19')

<sup>12</sup> For the cult profession <sup>LÚ</sup>zilupuriyatalla- see most recently M. Nakamura, *Nuntarriyašha* (2002) 161-162; Y. Arkan, *ArAn* 6/2 (2003) 1-26; F. P. Daddi, in: *Offizielle Religion*, 357-365; M. Schuol, *Hethitische Kultmusik*, 176.

<sup>13</sup> On the same conclusion see recently F. P. Daddi, in: *Offizielle Religion*, 360 and 364.



Among the Boğazköy versions of CTH 725, the main copy KUB 2.2+ presents <sup>LÚ</sup>*zilipuriyatalla* as the only person responsible for all of the duties in the course of the ritual, as he performs the rites, makes recitations and finally receives provisions supplied by the temple. The same role is played by <sup>LÚ</sup>*akuttarra-* in the main copy of CTH 726 KBo 37.1 from Boğazköy. The (Late-)Middle Hittite Ortaköy-Version of this ritual<sup>14</sup> is performed by <sup>LÚ</sup>*akuttara-* as well, but surprisingly, the text narration includes some additional conjurations of <sup>LÚ</sup>*ḫIŠKUR* “the man/priest of the Storm god” and mentions him as receiver of the provisions, which is not the case in KBo 37.1. The latter priest, however, is in charge in the Middle Hittite Boğazköy-Version CTH 726.3 as well (KUB 28.87 + KBo 37.3; see J. Klinger, *StBoT* 37, 682 ff.) where he is conjuring in Hattian (obv. 7’ ff.) and also receiving provisions (rev. 9’) like his colleague in Ortaköy. It is obviously not a coincidence that <sup>LÚ</sup>*ḫIŠKUR* appears in Middle Hittite versions of CTH 726 both from Boğazköy and Ortaköy, while he remains absent in New Hittite KBo 37.1. This issue seems to be dependent on time factors and is to be explained by the professional status and importance of <sup>LÚ</sup>*ḫIŠKUR* due to developments in the Hittite cult system over the centuries: the profession <sup>LÚ</sup>*ḫIŠKUR*/<sup>dU</sup> “Man of the Storm god” is exclusively proper to the Hattian cult during the Old and Middle Hittite Kingdom. He seems, however, to have lost his importance in the religious life of the Hittite capital Hattuša in the New Kingdom. It is noteworthy to observe that he is, according to KUB 25.23 left edge “a” 2, 4, still in charge in Ḫakmiš during the reign of Tuḫaliya IV, a traditionally important Hattian cult center<sup>15</sup>.

## References

For reasons of space, in most cases it is preferred to refer for bibliographical data on Hattian details to O. Soysal, *Hattischer Wortschatz in hethitischer Textüberlieferung*. HdO, Abt. 1, Bd. 74 (Leiden and Boston [2004]; henceforth *HWHT*), if they are already available there. The bibliographic and Hittitological abbreviations follow those used in CHD (Chicago 1980 ff.) and HW<sup>2</sup> (Heidelberg 1975 ff.). Additional abbreviations are:

*Hethitische Kultmusik*: M. Schuol, *Hethitische Kultmusik. Eine Untersuchung der Instrumental- und Vokalmusik anhand hethitischer Ritualtexte und von archäologischen Zeugnissen*. *Orient-Archäologie* Bd. 14 (Rahden/Westf. [2004]).

*Offizielle Religion*: Offizielle Religion, lokale Kulte und individuelle Religiosität. Akten des religionsgeschichtlichen Symposiums “Kleinasien und angrenzende Gebiete vom Beginn des 2. bis zur Mitte des 1. Jahrtausends v. Chr.” (Bonn, 20.-22. Februar 2003). *Alter Orient und Altes Testament* 318. Herausgegeben von M. Hutter und S. Hutter-Braunsar (Münster [2004]).

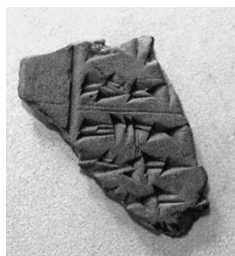
*Priests and Officials*: *Priests and Officials in the Ancient Near East. Papers of the Second Colloquium on the Ancient Near East - The City and its Life held at the Middle Eastern Culture Center in Japan* (Mitaka, Tokyo) March 22-24, 1996. Edited by K. Watanabe (Heidelberg [1999]).

<sup>14</sup> In preparation for a forthcoming article.

<sup>15</sup> As stated by O. Soysal, *JNES* 65 (2006, forthcoming). On this profession see A. Ünal, *Ortaköy* (1998) 67-82; M. Schuol, *Hethitische Kultmusik*, 175-176.



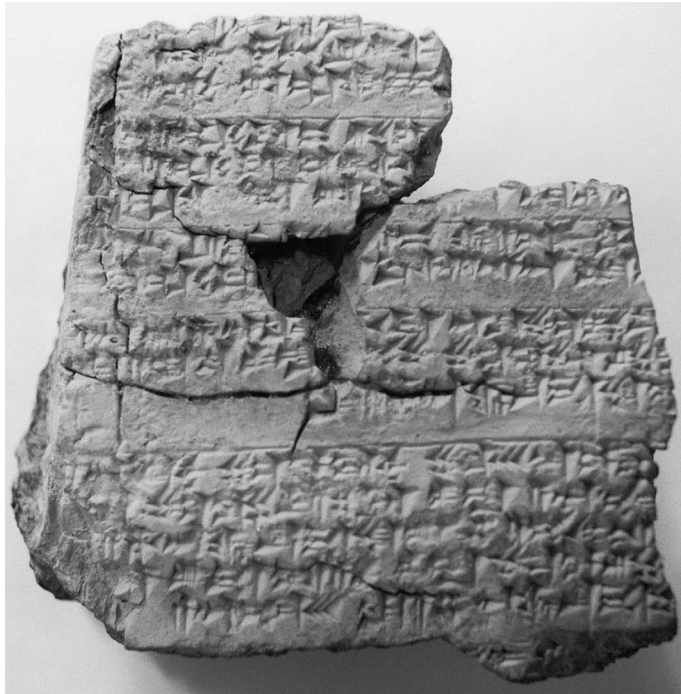
**1) Or. 90/401**



**2) Or. 90/1147**



**3) Or. 90/1067**



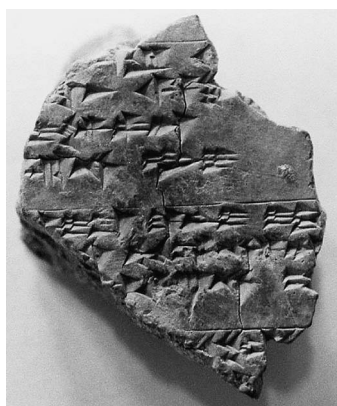
**4a) Or. 90/1839 + Or. 90/1771 + Or. 91/113 obv.**



**4b) Or. 90/1839 + Or. 90/1771 + Or. 91/113 rev.**



**5) Or. 90/1690**



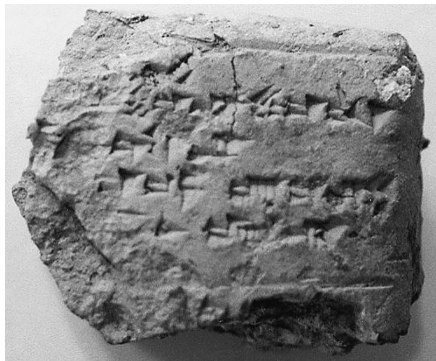
**6) Or. 90/1362**



**7a) Or. 90/132 + Or. 90/292 (+) obv.**



**7b) Or. 90/132 + Or. 90/292 (+) rev.**

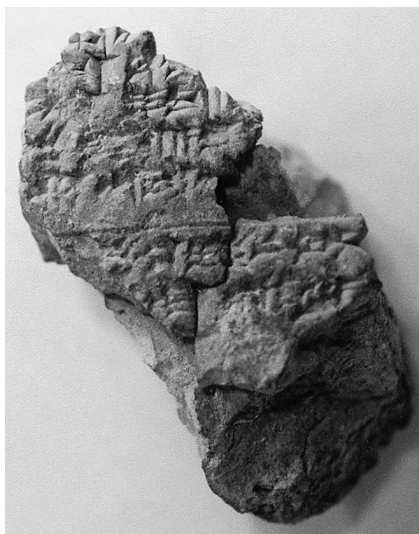


**7c) (+) Or. 90/422 rev.**



**8) Or. 90/1010**





**9a) Or. 90/995 + Or. 90/1750 obv.**



**9b) Or. 90/995 + Or. 90/1750 rev.**



## REPORT ON EXCAVATIONS AT ZİYARET TEPE, 2006 SEASON

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### INTRODUCTION

The tenth season of archaeological exploration at Ziyaret Tepe in the Diyarbakır Province of southeastern Turkey started on 19 July and ended on 8 September 2006 [see Fig. 1 for location of the site]. The project director was Dr. Timothy Matney (University of Akron) and the assistant director was Dr. Lynn Rainville (Sweet Briar College). The field director for excavations on the high mound was Prof. Dr. Kemalettin Köroğlu (Marmara University). An international team of eighteen archaeologists from the United States, Europe, and Turkey were present during the 2006 season and the findings discussed in this preliminary report are only possible due to their dedication and hard work in the field.<sup>1</sup> Since 1997, the Ziyaret Tepe archaeological project has been part of a larger salvage project initiated by the Turkish authorities prior to the construction of a large hydroelectric dam downstream on the Tigris River at the modern site of Ilisu. After years of delays, on 5 August 2006, an official groundbreaking ceremony was held at the future Ilisu Dam site and an anticipated completion date for the reservoir of 2012 was officially announced. Our work at Ziyaret Tepe has now taken on a renewed urgency in anticipation of the completion of this development project.

Fieldwork at Ziyaret Tepe was carried out in two areas of the site in 2006. First, excavation took place across four 10m by 10m squares on the high mound in Operation L, as a continuation of excavations started there in 2004. The primary goal of these excavations was to uncover and record deposits post-dating the collapse of the Late Assyrian urban center at Ziyaret Tepe/Tushhan in 610 BC (see Matney et al. 2002; 2003; Matney and Rainville 2005; Parpola forthcoming). In general, the material assemblage from the Upper Tigris River valley during the Late Iron Age through the Late Medieval periods (c. 600 BC to AD 1600) is poorly understood. This article presents a preliminary publication of a well-stratified corpus of ceramics and other remains in order to better understand the human use of the valley after the collapse of the Assyrian empire. Most of the archaeological work being carried out under the aegis of the Ilisu Dam Salvage Project focuses on the prehistoric and early historic periods, with the notable exception of

<sup>1</sup> This project was conducted under the auspices of the Diyarbakır Museum and its acting director Nevin Soyukaya. Zerrin Akdoğan from the General Directorate in Ankara served as our *temsilci* for this season. Funding was provided by the National Endowment for the Humanities (NEH) in the United States, as well from public and private institutions in the United States and Europe.

excavations at the important Medieval center of Hasankeyf, located on the Tigris River 55 km downstream from Ziyaret Tepe. As such, our work represents an important contribution to the archaeology of these later periods in the region.

The second field operation carried out in 2006 was the continuation of subsurface geophysical survey conducted by a University of Akron team in the western lower town adjacent to earlier excavations in Operations G, J, and K. In particular, the 2006 electrical resistance survey expanded on an earlier survey first conducted in the western lobe of the lower town in 2004 (Matney and Rainville 2005). The 2004 geophysical survey showed a monumental gateway through the city fortifications dating to the Late Assyrian period, as well as several other major public buildings near the southwestern corner of the site. The primary objective of the 2006 season was to expand this survey to the west and north of the previous surveys in order to map additional Late Assyrian architecture prior to planned digging seasons in 2007 and 2008.

This preliminary report is organized as follows. First, the results of the excavations in Operation L are presented, organized temporally by occupational level. Four levels were recognized in the 2004-2006 excavations in Operation L: L1 (Ottoman?), L2 (Medieval), L3 (Late Iron Age), L4 (Late Assyrian). Several of these occupational levels are further subdivided into earlier and later phases. The occupational levels mark major stratigraphic breaks, while the phases represent different manifestations, often re-buildings or multiple floor deposits, of the same chronological period. Preliminary reports on the ceramics and other finds are incorporated within the discussion of each of the occupational levels. Additionally, preliminary results from a study of microdebris taken from the Medieval (L2) architecture are described in that section. Second, the results of the electrical resistance survey are discussed. Finally, a brief report on the continuing analysis of Late Assyrian finds excavated at Ziyaret Tepe is presented. In particular, we discuss the continuing development of a comprehensive Late Assyrian ceramic typology from Ziyaret Tepe based in large part on excavations in Operation G conducted between 2001 and 2004.

#### EXCAVATIONS IN OPERATION L (2006)

During the 2000-2004 seasons, the primary areas of excavation on the high mound were Operations A and E [Fig. 2]. These excavations initially suggested that large-scale settlement on the eastern part of the mound ended in the Late Assyrian period, with only ephemeral later use of the high citadel mound. At least one phase of Medieval architecture, mostly found as isolated wall fragments, was recorded and published initially as Phase D of Operation A (Matney et al. 2002: 56-57). In addition, Operation A saw extensive pitting subsequent to the Late Assyrian occupation. We suggested earlier that sherds spanning a wide time range from the Late Iron Age to Islamic periods were recovered in Operation A (Matney et al. 2002: 58). However, the main focus of work in Operation A was a monumental mudbrick building, possibly a palace, dating to the Late Assyrian period. In Operation E, stratified remains extending from 3<sup>rd</sup> millennium BC to the Late Assyrian period have been uncovered in a long step-trench, but these excavations

add little to our documentation of the post-Assyrian use of Ziyaret Tepe. Subsequent test trenches exposed on the northern half of the mound (Operations I and L) supplied the first evidence of substantial post-Assyrian occupation.

The Operation L excavations, started in 2004 in a single 10m by 10m trench (N1080 E1030)<sup>2</sup>, revealed at least three occupational phases in a 1.0-1.5m thick deposit above the Late Assyrian level, originally called Phases B, C, and D (Matney and Rainville 2005: 36-37). The goals of the 2006 excavations in Operation L were to expose the post-Late Assyrian levels over a broad area in order to understand the occupational sequence at Ziyaret Tepe after the collapse of the Assyrian empire in the late 7<sup>th</sup> century BC. Work also focused on documenting changes in settlement types and the nature of the hiatuses between settlement periods.

The Operation L excavations in 2006 were undertaken in four 10m by 10m trenches (N1070 E1030, N1080 E1030, N1090 E1030, N1080 E1040) on the high mound. The excavation area slopes generally downward towards the south at this place. The elevation difference between the northernmost point and the southern edge is about 2m, presumably caused by extensive erosion over the centuries on the high mound. Operation L comprises remains from the Ottoman period, Medieval period, and Late Iron Age, all lying above the Late Assyrian building levels. Interestingly, the nature of occupation shifted dramatically through time at Ziyaret Tepe, as described below. During excavation, these levels were given shorthand names reflecting the distinct nature of each occupational event. From top to bottom the four levels are “Tent Level”, “Medieval Level”, “Pit Level”, and the “Late Assyrian Level”.

#### LEVEL L1: OTTOMAN PERIOD (THE “TENT LEVEL”)

##### **Architecture and Stratigraphy**

Remains of this occupation level (L1) were found just below the topsoil in all four trenches of Operation L, although it was badly disturbed in places. We have tentatively dated this level to the Ottoman period primarily on its stratigraphic location above the Medieval level and on the nature of its architecture, as discussed below. The architectural remains point to a settlement with at least two phases (L1a = later; L1b = earlier). In general, the architecture of Level L1 has oval, circular, or rectilinear walls comprising a mixture of medium- and small-sized pebbles and mud. No multi-roomed buildings were found in the last phase (L1a). The stones which comprised these walls are pebbles of various sizes that are usually unworked, although their location on the top of a 23m-high mound proves that they were deliberately transported here. These are not load-bearing walls and, in fact, more accurately form “alignments” rather than walls *per se*. [Fig. 3].

<sup>2</sup> Trenches are designated by northings and eastings from an imaginary datum established to the southwest of Ziyaret Tepe. Trench numbers refer to the southwestern corner of the 10m by 10m grid square.

One of the better preserved examples of the L1a architecture are walls L-203 and L-244<sup>3</sup> in trench N1090 E1030, which look like stone courses partly surrounding an oval building that was at least 6m in length shown in Fig. 3 by dashed lines. Likewise, stone courses (L-324) in the southwest corner of trench N1080 E1040 form a circular plan. In contrast, stones found in the eastern part of trench N1080 E1030 do not form a distinct plan, suggesting they had been scattered on an ancient surface before their burial. Three linear alignments in the western and southern parts of trench N1080 E1030 (L-106, L-107, and L-108) may represent segments of wall alignments dating to level L1a. The phasing of trench N1070 E1030 remains under investigation. Flat stones with smooth surfaces surrounded by smaller stones could have been supports for wooden posts used in the L1a buildings, although an alternative explanation is suggested below. No signs of mudbricks above the stones were identified, although mud appears to have been used to hold the stones together in Level L1a. Likewise, there were no dense concentrations of stone collapse surrounding these features, suggesting that additional stone courses did not exist. Apart from a few uncertain cases, there were no *tannurs* or storage pits associated with the architectural remains in this building level.

An earlier phase, termed L1b, shows a more regular plan. For example, walls or wall foundations L-313 and L-318 found in the north part of trench N1080 E1030 are rectilinear in plan have widths varying between 60 and 80cm. While complete plans of the L1b buildings could not be documented, this earlier phase had more permanent buildings. Here, mudbrick traces in addition to mud on top of the stone wall foundations were also documented, suggesting that these walls may have held some sort of superstructure. In the southwest corner of N1070 E1030, a rectangular storage pit also points to a permanent settlement of long duration within a building that contained at least two rooms built of mud and stones. In the southern part of Operation L, in trench N1070 E1030, remains of similar walls or wall foundations (L-362 and L-363) belonging to a building were also found. The floors of the L1b structures were simply beaten earth and, given their proximity to the surface, it was nearly impossible to define them with certainty. No scatters of flat-lying broken potsherds or features were present to enable us to definitively follow floor surfaces. As such, the attribution of specific artefacts to the “Tent Level” is problematic.

## Ceramics

We found a number of handmade portable bread baking pots from this level. These pots are similar to those that are used by villagers who, until quite recently spent their summers in high pastures with their livestock in the Eastern Black Sea region<sup>4</sup>. However, it is not entirely clear whether these vessel fragments are confined

<sup>3</sup> The recording system used at Ziyaret Tepe is based on a locus system. Each feature (e.g., wall, floor, pit, contents of pit, etc.) is given a unique site-wide identifier. The format of the identifier, or locus number, is Operation letter, followed by a hyphen, followed by a unique serial number (e.g., L-201, L-202, etc.).

<sup>4</sup> We would like to thank Şahin Koroğlu who documented the ethnohistorical pottery from Arvin.

stratigraphically to level L1, or whether they also are found in the preceding Medieval (L2) occupational level. A complete handmade, miniature ceramic vessel (ZT 19513, L-253) made of very coarse ware perhaps dates to the 19<sup>th</sup> or 20<sup>th</sup> century, although we have no exact parallels for this artefact [Fig. 4: A]. Our understanding of Late Islamic pottery remains problematic, although there have been some recent publications from northern Mesopotamia (e.g., Simpson 1993: Fig. 3 illustrates a beescarer from Diyana in Iraq. This material was brought back from the region in 1956 and is now in the Pitt-Rivers Museum; see also Simpson and Watkins 1995; Simpson 1997).

### Small Finds

As with the pottery, there are few small finds that can be securely identified as belonging stratigraphically to Level L1. However, several Ottoman period finds, some from Operation L, suggest some occupation during this period. Of particular interest is a clay disc (ZT 20057, L-301) with a hole through it and Arabic writing stamped on either side found in the topsoil in trench N1080 E1040 [Fig. 4: B]. Originally, it was thought that the disk was a sealing that would have had a hole in the middle so that the text could be attached with a string around a document. Another suggestion, however, was that the object was a Shi'ite prayer stone and this latter interpretation now appears more likely.<sup>5</sup> The use of such "stones" by Shi'ites when they pray is well documented. A special type of textile, known as the *Jā Namāz*, is opened out and the prayer stone is placed on it (Khosronejad 2006: 33). Prayer stones are made of light brown clay from Mecca, usually ornamented with words or symbols stamped on it (Mortensen 1993: 145, No. 14.6.77). When an individual prays, their head comes into contact with the prayer stone, which eventually produces chronic skin changes on the forehead (Vollum and Azadeh 1979; for the clinical changes brought about by praying in general, see Abanmi et al. 2002). These objects are rarely found in archaeological contexts. So far, only two parallels have been found, both from Bahrain, where they were found in graves and dated to possibly the 16<sup>th</sup>/17<sup>th</sup> and the 16<sup>th</sup> century respectively (Kalus 1990: 95-98, nos. 48-49; Kervran 2005: 338, 342-343. Pl. 100). The fact that the piece has a hole through the middle of it, however, may indicate that it was a Shi'ite amulet. Amulets are known to be made from clay from shrines, particularly from Karbala. Talismans are round often with circles encircling the names of prophets, etc (Donaldson 1938: 205-206). The Shi'ite practice of using sacred earth for talismans goes back at least to the 10<sup>th</sup> century AD (Bosworth 1976a: 199, v. 60, 297, v. 27; Bosworth 1976b: 86, 146; Ruska and Barra de Vaux with Bosworth 2000: 500). If the identification of this object as being Shi'ite correct, it is of great interest, as it is clear from the Ottoman writers of the area that the region was extremely heterogeneous from a linguistic, religious, and ethnic point of view (Van Bruinessen 1988: 29-30, 32; for the Arabic of this area see Socin 1904; Jastrow 1969a; Jastrow 1969b; Sasse 1971).

<sup>5</sup> We would like to thank Nevin Soyukaya of the Diyarbakır Museum for this suggestion.

Also of Ottoman date are several fragments of fired clay tobacco pipes that were found on the surface elsewhere at Ziyaret Tepe. Finds of pipes occur throughout the Ottoman world and are found even in small village sites (Boas 2000: 555; Van der Lingen 2003: 131) and at sites where there is no accompanying architecture and very little other Ottoman pottery (Avissar 1996a: 198-201; Avissar 1996b: 117). Three pipes have been examined. ZT 12891 (J-063) is very crudely made with a large bowl that could date to the 19<sup>th</sup> century [Fig. 4: C]. This dating is based upon parallels with a pipe with a particularly large bowl found in Beirut (Van der Lingen 2003: 136, Fig. 5). ZT 0201 (surface find) is made from light brown clay which could indicate an early date at the end of the 17<sup>th</sup> century or beginning of the 18<sup>th</sup> century [Fig. 4: D]. ZT 0206 (surface find) is likely to be of 18<sup>th</sup> or 19<sup>th</sup> century date (Robinson 1983: 266; Robinson 1985: 161; Simpson 2000: 147) [Fig. 4: E].

### Interpretation

In light of these observations, it is difficult to say whether or not the latest settlement (L1: “the Tent Level”) was associated with a full time sedentary group employing subsistence agriculture. It seems most likely that this was a camp used by semi-nomadic tribes in the Ottoman period, although the lack of well-stratified late material at the site raises questions about whether one should date Level L1 to the Ottoman period, or perhaps earlier (i.e., in the late Medieval period). The circular arrangement of irregular stones in L1a most likely belonged to tents, and the pebble and mud foundations to seasonal shelters. Taylor, who conducted the first archaeological observations in the upper Tigris region in the mid 19<sup>th</sup> century, described communities living in tents, in the most northern part of Mesopotamia, and divided them into two main tribes called Kikeea (Kikan) and Milleea (Milli). His observations demonstrate the importance of nomadic groups in the region during the late Ottoman period (Taylor 1865).

Ziyaret Tepe sits approximately halfway between the high Taurus Mountains to the north, and the lowlands of the northern Jazira to the south. Pastoralists moving their flocks from summer pastures in the Taurus Mountains would have first passed through the fertile, low-lying Upper Tigris River valley before reaching the traditional winter pastures of northern Syria, approximately 120km south of Ziyaret Tepe. While it is not certain that these ephemeral structures were used by pastoral nomads, the insubstantial nature of the architecture, their form, and their location on a high point overlooking the entire Tigris River valley is strongly suggestive of such a use.

We know that there was a considerable nomadic population in the Ottoman period and one large tribe accounted for about 10% of the population (Van Bruinessen 1988: 35). According to the tax registers for the Urfa region on the Euphrates to the west, in the 1560s, 23% of the province lived in cities, 46% lived in villages, and 31% were nomads (İlhan 2001: 10). The mountains of Diyarbakır to the north of Ziyaret Tepe provided excellent summer pastures for the flocks of nomadic tribes. In 1540 the Boz Ulus confederacy owned almost two million sheep and paid considerable taxes. Moreover, many sedentary villages kept sheep, goats, and cows (Van Bruinessen 1988: 41). Sixteenth century land registers in Diyarbakır note that there are five nomadic tribes in the region:



the Keke (probably Kikan), Reşi, Aluci Kuçer, Döğerni and Berazi (İlhan 2000: 98). Likewise, during the same period and according to the same land register in Depekendi (Tepe) along with the hamlet of Koki there were seventeen homes, suggesting that Tepe, immediately west of ancient Ziyaret Tepe, was a tiny village at this time (Ibid: 156).

Finding actual evidence for these or other nomads in the archaeological record is problematic, as some argue that nomads are archaeologically invisible, while others point out that nomads do leave traces in the archaeological record (Armstrong 2001: 282). The nomads would have probably spent the winter in one place (sometimes settling there permanently in a village) and in the summer moved to a series of several pastures (Loeffler 1988: 7, 9; Yalçın-Heckmann 1991: 145; Van Bruinessen 1992: 17). The tents would have likely have had stone foundations built around them in order to keep out the wind (Watson 1979: 263; Digard 1981: 153-154; Cribb 1991: 80, 86, 88, 95-96). If the remains in Operation L at Ziyaret Tepe represent a nomadic village dating to the Ottoman period, one might expect to find a wide variety of objects at the site of that date, such as was found at the late Ottoman village of ʿOrvat ʿEleq in Palestine (Boas 2000: 547, 552) or Belmont Castle (Knowles 2000: 114-115). On the other hand, not much material was found in the Late Islamic villages of Kharbeh (Simpson and Watkins 1995) or Khirbet Khatuniyeh (Curtis and Green 1997: 12-13). In other words, the relative abundance of material remains is not, in itself, necessarily indicative of the permanence of a settlement. There are some historical sources that describe how a nomadic encampment might have appeared during the Ottoman period. For example, a drawing touched with colour dating to 1400-1403 is accompanied by a *diwan* of poetry written by Sultan Ahmad Jalayir. The drawing depicts a nomadic encampment and is full of details, particularly about the nature of the tent (Sims with Marshak and Grube 2002: 152, No. 171). Such depictions suggest that ephemeral scatters or alignments of stone, such as those found at Ziyaret Tepe, may indeed be the remains of semi-nomadic or nomadic encampments.

## LEVEL L2: MEDIEVAL PERIOD

Architecture dating to the Medieval period (L2) is stratified immediately below Level L1. The remains from this period were reached in Operation L in all four trenches, although N1070 E1030 was not finished in the 2006 field season and our interpretation of that trench must await the 2007 excavations. The architecture in Level L2 is quite different from that of the later occupational level. The Operation L Medieval buildings are rectilinear and built primarily of mudbrick. Stone was not used significantly, except for repairs to a few walls. The length of occupation in Operation L during the Medieval period is difficult to determine accurately. Evidence for at least two building phases (L2a = later, and L2b = earlier) suggest that occupation in Operation L spanned at least a century. The dating of artefacts, both those associated with the architecture and those found in other Medieval contexts at Ziyaret Tepe, suggest a longer occupation, perhaps covering the 12<sup>th</sup> through 15<sup>th</sup> centuries AD. A single radiocarbon date from Operation L taken in 2004 provided a one-sigma determination spanning the 14<sup>th</sup> century, a date which accords well with the ceramic and other small finds evidence.

In order to understand the situation at Ziyaret Tepe in the Medieval period, it is necessary to place the site within its Medieval context. The region was one that was important for various political dynasties due to its geographic location on the axis of trade routes from Iran to Anatolia and Syria. Under the Muslims, the region formed part of the province of the Jazira, whose capital was in Mosul. The area under examination here was known as the region of Diyār Bakr (abode of the tribe of Bakr), after the tribe that was settled in the area. Beginning in the end of the 11<sup>th</sup> century, the region came under the sway of the Turcoman Artuqid dynasty, who ruled parts of the region until the beginning of the 15<sup>th</sup> century. The region was politically divided between the Artuqids and the Ayyubids when the Mongols invaded in the late 1250s and early 1260s. After the Mongol conquest of the area, they allowed both dynasties to rule, in a somewhat restricted form. Then, during and after the time of the invasions of Timur in the 15<sup>th</sup> century, the area became part of the struggle between the Aqqoyunlu and the Karakoyunlu tribal confederations. The Aqqoyunlu eventually triumphed in 1467 but were in their turn defeated by the Safavid Persians in 1507 and then the area fell to the Ottomans in 1517 (Amedroz 1902; Amedroz 1903; Cahen 1934; Cahen 1935: 219; Cahen 1955: 65, 67-68, 84-85, 95-97; Cahen 1960: 662, 665; Minorsky 1960: 311-312; Dahan 1962: 115-116; Canard and Cahen 1965: 343-344; Woods 1976; Vāth 1987; Cahen 1988: 55, 119, 331; Hillenbrand 1990; Ripper 2000; İlhan 2001: 11. For an overview of the sources see İlhan 1989). The area was a rich cultural center where manuscripts, metalwork, and other artefacts were produced, particularly in the Artuqid period (Von Berchem and Strzygowski 1910; Çağman and Tanındı: 30-31; Hill 1974; Ward 1985; Creswell 1988; Stepan 1995).

### Architecture and Stratigraphy

A single well-preserved room (1201)<sup>6</sup> of Medieval date was excavated in 2004 (Matney and Rainville 2005). In 2006, we were able to expand this plan to include over a dozen rooms, probably belonging to two or three different buildings with an intervening courtyard [Fig. 5]. These remains are provisionally called level L2a. In trench N1090 E1030 the plan of four rooms of a rectilinear mudbrick house (Rooms 1202, 1203, 1204, and 1205) were excavated, as well as an associated *tannur* (L-210) and pits [Fig. 6]. It appears possible that these rooms are part of a larger complex as the southern wall of Room 1205 (L-148, excavated in 2004) has its return in the northwestern corner of trench N1080 E1040. Four additional rooms to this building were recovered in trenches N1080 E1030 and N1080 E1040 (Rooms 1206, 1207, 1208, 1209), as well as part of a large open or courtyard space (1215).

The overall dimensions of the house are maximally 16m by 8m, or about 128m<sup>2</sup>. Mudbricks of variable dimensions (42cm by 30cm, 41cm by 42cm, 31cm by 30cm) were

<sup>6</sup> Rooms are numbered sequentially by Operation. Starting in 2006, a convention was adopted where the first two digits correspond to the operation letter (L=12) and the last two digits are a sequential room number. This system was applied retroactively to the 2004 excavations in Operation L.

used for the walls. For this reason, the walls appear to vary in thickness from a minimum of 30cm to a maximum of 50cm. The walls were preserved to a maximum of three or four courses, and in several places only a single course of mudbricks could be discerned. Flat stones located in the northeastern part of the house where the mud brick walls defining Rooms 1202 and 1203 in trench N1090 E1030 ended indicate an entrance that was probably a semi-open portico on wooden posts (L-236). Few *in situ* finds indicating the functions of the rooms were unearthed on the floors. This being said, it is possible to make some observations on the probable use of the building.

Starting in the north, the long and narrow Room 1203 (1.5m by 5.8m) and Room 1202 (1.8m by 5.8m) resemble common magazines of the region and could have been used as storage rooms. The two smaller rooms (Rooms 1204 and 1205) are about 2.0m by 2.6m, too small for many domestic functions. In trench N1080 E1040, Rooms 1206, 1208, and 1209 sat upon a terrace prepared on the part of the mound that slopes down towards the east. Room 1206 measured 1.4m by 2.8m and had a *tannur* (L-323) at its northern end. There were clearly at least two, and almost certainly several, different phases within this building. For example, in the northwest corner of trench N1080 E1040 Room 1215 appears to have had a southern wall and a lower floor that could have been used for storage. This earlier room, which was destroyed by a fire, extends into trench N1080 E1030. There was a dense ash layer and burned beam parts on the floor, which disturbed a portion of an earlier Late Assyrian courtyard pavement. Likewise, the floor of Room 1208 had quantities of burned organic remains and was perhaps a storeroom for cereals. The clear lack of a doorway also suggests that this may have been a cellar or basement room, entered from the ceiling.

While the architecture is not monumental in scale, the mudbrick wall footings were clearly built within foundation trenches in the northern area of this building. Two of the foundation pits dug for the mudbrick house in trench N1090 E1030 were 45-75cm deep and went down to the Late Assyrian building level. These foundation pits were filled with mud up to the floor level. In one foundation trench, a cow skull and other bovine bones were placed at the bottom of the foundation trench (L-220) with the mudbrick wall being built directly on top of these large intact animal bones. Such a deposit suggests a votive offering during a foundation ceremony [Fig. 7].

Separated from this eight-room complex by a narrow north-south alleyway at the eastern edge of N1080 E1040 were two rooms of a second mudbrick building (Rooms 1212 and 1213). The northernmost room (Room 1212) leads to an open space, possibly a courtyard, to the north, suggesting that our excavations discovered only the northwestern corner of a larger mudbrick building of Medieval date. Likewise, three walls (L-117, L-118, and L-119) and two *tannurs* (L-114 and L-139) belonging to a third mudbrick building associated with this level were investigated in the southwestern part of trench N1080 E1030 in 2004. This building comprises, at the moment, only Room 1201, although the two north-south walls L-118 and L-119 clearly continue into the southernmost trench N1070 E1030. Stratigraphically, wall L-119 cuts the earlier *tannur* L-139 demonstrating again a sequence of architectural phases within the Medieval village. With the completion of excavation in this trench in 2007, we hope to extend the

plan of this well-preserved building. The Medieval deposits are thickest in this area of Operation L and are correspondingly better preserved.

A second, earlier phase of Medieval occupation (L2b) is in evidence in Operation L, although it has largely been destroyed by the later phase. Evidence for this phase is seen principally in the form of numerous pits which were sealed by Medieval mudbrick architectural remains. At least two of these pits (L-247 and L-249) are storage pits widening towards the bottom, although there is no architecture associated with Level L2b recovered in Operation L at this time.

## **Ceramics**

Medieval pottery has been recovered during the course of surveys in the Upper Tigris region, but has not been systematically published. Likewise, although there have been Medieval excavations at the sites of Diyarbakır and Hasankeyf for many years, little published data from the Medieval levels has appeared (Aslanapa 1962; Aslanapa 1965a; Neither of these articles publish any pottery from the site. A few pieces have been published in Aslanapa 1965b: Abb. 1-3. For discussion of the survey of the region, see Algaze 1989; Algaze et al. 1994). Other sites also remain largely unpublished, such as the excavations at Harran (Rice 1952). There is more plentiful comparative material from the western Euphrates area in Turkey (Goell and Otto-Dorn 1963; Schneider 1970; Whallon 1979; Bakırer 1980; Mitchell 1980; McNicoll 1983; Wilkinson 1990; Moore 1993; Redford 1995; Redford 1998) and from northern Mesopotamia (Boehmer and Fenner 1973; Simpson and Watkins 1995; Wilkinson and Tucker 1995; Simpson 1997). As such, our study of the stratified Medieval pottery from Ziyaret Tepe is an important contribution to the study of the Upper Tigris region in the Medieval period and places the occupation here into a wider historical and social context.

### *Unglazed pottery*

The fabric of the glazed and unglazed pottery can be roughly divided into two groups: cream-white wares and red wares. The majority of the unglazed coarse wares found at the site were probably produced at Ziyaret Tepe. A common form of unglazed ware was cooking pots with lids, which were probably produced on the site, although there is no firm evidence yet for this. However, there is evidence that at least some of the finer cream wares were produced at the site, shown by the presence of one kiln waster. The presence of wasters may not always indicate kiln production, however. For example, the excavators at Tille Höyük suggested that the three glazed wasters found at their site might have been sold as second rather than to be taken as an indication that pottery was made on the site (Moore 1993: 71). This evidence for ceramic production at Ziyaret Tepe is not surprising. Pottery is necessary for daily life and local potters doubtless produced various types of vessels for domestic use. The production of pottery at Ziyaret Tepe was probably low-level family production, who were not skilled or well enough organized so as to belong to a guild. It is possible that there were small workshops within the local community that might have traded with other communities in the area (Rezq 1988: 4-5, 12). In an ethnoarchaeological study in Qamishli in northeast Syria, the pottery workshop

was owned by a small family where the men made wheel-thrown pots and the women produced hand-made pottery and *tannurs*. In Dara, near Mardin, only a few women made pottery, which again, was hand-made. Such local potteries generally concentrate on making common domestic wares (for Qamishli see Taniguchi 2003: 143, 148-149 and for Dara see Dönmez and Brice 1953. For studies of modern potters in the Middle East see, among others, Blackman 1927: 135, 165; MacFayden 1947; Wulff 1966: 151-165; Matson 1974; Brissaud 1982; Golvin et al. 1982; Matson 1983; Mershen 1985; Crane 1988; Güner 1988; Henein 1997; Salem 1994; Van der Kooij and Wendrich 2002; Nicholson 2002. For ovens see also MacQuitty 1984 and MacQuitty 1993-4). At Ziyaret Tepe, aside from the waster, there is no evidence for ovens or tripod stilts, such as is found at sites where kilns have been discovered. At Terqa, a kiln was dated by coins to the 12<sup>th</sup> century AD (Mahmoud 1978). Mitchell argued that he had found a large scale pottery workshop at Aşvan Kale (Mitchell 1980: 51-53). Öney and Redford both suggested that Samsat produced its own pottery although there was no direct evidence from the site for this (Öney 1994: 287-290; Redford 1995:66). At Korucutepe, excavators found tripod stilts for firing glazed pottery but no kilns (Bakırer 1980: 196). The kilns found at Ziyaret Tepe all pre-date the Medieval period.

As noted above, one of the most common forms found at Ziyaret Tepe are unglazed cooking pots with both lug and strap handles. The pieces are often very coarse, chaff-tempered, and show signs of burning. In addition, lids have been found for these pieces [Fig. 8: A and B]. It is possible that these cooking pots were bread ovens or stewing pots that would have been placed in *tannurs* overnight in order to bake their contents. There seems to be an absence of large storage vessels at the site, which is remarked upon by Armstrong in her study of the material from Lycia (Armstrong 2001: 281-282). She argues that if the population was consuming large amounts of grain and oil, then one would expect large storage vessels. She also suggests that the absence of these vessels indicate that individuals were subsisting on milk and meat, roasting animals over a large fire and not requiring huge cooking pots. Interestingly, however, the depiction of nomadic camp life in a 15<sup>th</sup> century miniature does, in fact, show nomads cooking in what seems to be a fairly large pot, although this depiction may not be accurate. The large number of *tannurs* at the site, however, argue for the fact that bread was a dietary staple at Ziyaret Tepe. When a full corpus of these wares has been established, it will be useful to compare these with Mongol and Iraqi cookbooks, to see if the dishes prepared in these cookbooks would have been part of the fare for the residents of Ziyaret Tepe and if any changes can be observed through time (Arberry 1939; Buell 1990; Buell 1998; Buell and Anderson with Perry 2000; Rodinson et al. 2001; Perry 2005).

In addition to the coarse cooking pots, fine cream wares have been found at the site. These are typical of pottery found in the area that has its roots in Sasanian white wares and were very popular in Islamic period pottery starting in the 'Abbasid period after the capital moved to Mesopotamia. This pottery became a popular type of coarse ware and were often used to store water. This function is further indicated by the discovery of a filter neck, unfortunately broken, at the site [Fig. 8: C]. Filter necks were

used to prevent small insects from entering and contaminating the water inside (Scanlon 1986: 1; Watson 2004: 132).

### *Glazed pottery*

The glazed pottery can be divided into several types including monochrome plain glazed wares: green and blue glazed wares (sometimes decorated with black under-glaze paint), blue and white ware, sgraffiato decorated wares, and slip wares. Most, if not all of the glazed pottery was likely to have been imported to the site, although nothing yet found precludes its production at Ziyaret Tepe. It is likely, however, that the majority of the pottery was produced in the local area, perhaps at the regional centers of Diyarbakır, Mayyāfariqīn, and Hasankeyf. Blue glazed ware at Ziyaret Tepe is one of the more common types of fine glazed pottery found at the site [Fig. 9: A and B]. Such wares were originally produced in the 12<sup>th</sup> century to imitate Chinese porcelain and they continue to be found into the 15<sup>th</sup> and 16<sup>th</sup> centuries AD (Watson 2004: 395, 450). This type of blue glazed pottery was common throughout the Euphrates valley (Tonghini 1998: 55) and at Harran (Rice 1952: 67, 69). Its ubiquity caused Tonghini to term it a “common use” type of pottery, which would have been produced locally to be used for storage, transport, food preparation, and tableware and not have been widely traded (Tonghini 1998: 55).

In addition to the blue glazed ware, blue and white ware was also found at the site, as discussed in more detail below. Generally, such wares are seen as imitations of Chinese porcelains, first imported into the Near East in the 14<sup>th</sup> century AD and then copied by local potters. Determining centers of production of this type of pottery has been problematic (Bailey 1996: 7; Golombek 1996: 3; Watson 2004: 418, 449). Mason has suggested that pottery produced in Diyarbakır was exported to both Persia and Kenya (Mason 1996: 36; Mason et al. 1996: 115. For further suggestions that Diyarbakır was the center of ceramic production, see Raby 1977-1978. The ceramics from Siraf have yet to be fully published. For a few of them see Whitehouse 1969: 54-58) and it is possible that the blue and white pottery found at Ziyaret Tepe was produced in Diyarbakır. However, recent excavations at Hasankeyf have produced blue and white Ottoman imitations of Chinese porcelains from reliable 15<sup>th</sup> century contexts, including eight kilns recently excavated in association with blue and white ceramics. Furthermore, many of the monochrome, under-glaze, sgraffiato, and rouletted ceramics of the 14<sup>th</sup> century date from Ziyaret Tepe have close parallels from Hasankeyf, where production is now documented.

Redford has suggested that sgraffiato ware found in eastern Anatolia, northern Syria, and the Jazira belongs to local production centers that shared similar shapes, glazes, and decoration (Redford 1995: 67; Vorderstrasse 2005) [Fig. 9: C, D, E]. Monochrome and polychrome sgraffiato pottery is ubiquitous throughout the Near East in the 13<sup>th</sup> and 14<sup>th</sup> centuries and therefore it should not be surprising that it is found here. Polychrome sgraffiato pottery was found in Diyarbakır (Aslanapa 1965b: Abb. 2) as well as at the Euphrates sites (see discussion in Redford 1998: 55; Tonghini 1998; and Vorderstrasse 2005), but it is not reported to have been found at Harran (Rice 1952: 67, 69).

A detailed study of glazed ceramics was undertaken by Dr. Nurşen Fındık who examined 301 glazed ceramic fragments from Operation L (104 fragments from 2004;



197 fragments from 2006). Together with the few surface finds, this small corpus can be used to define several distinctive typological groups. Pottery sherds found at Ziyaret Tepe indicate that a number of different decorative techniques were used at the site. Furthermore, some of the sherds have lost their glazes and decorative elements altogether, further complicating the study of glazed ware form distribution. Monochrome glazed wares (210 fragments) dominate the glazed pottery assemblage, followed by polychrome sgraffiato wares (54 fragments). The other decorative techniques utilized on Ziyaret Tepe glazed ceramics include under-glaze color painting (12 fragments), incision (11 fragments), splashing (4 fragments), blue-white technique (2 fragments), and champlévé decoration (3 fragments).

The Medieval glazed wares at Ziyaret Tepe are characterized by colors varying between red (5YR 6/6, 2.5YR 5/6, and 7.5YR 6/4) and brown. Fabrics are generally hard with few voids. Color variations that are probably related to firing conditions are observed on some fragments. Limestone, mica, sand, and grog inclusions are observed in the fabrics, with limestone the most common. Fabrics from a group of monochrome glazed water jugs, bases and bowl rim fragments are light gray (2.5Y 7/2), medium fired or under-fired with few inclusions like the unglazed Medieval ceramics of Ziyaret Tepe and form a distinctive group typologically.

In terms of form, bowls are the most common form documented at Ziyaret Tepe. Convex-bodied bowls with their rounded or grooved rims, shallow dishes, and bowls with extended ledges, storage jars, and jugs are also common in the Medieval glazed pottery corpus [Fig. 10]. Storage jars occur in two principal forms, one open and the other one closed like *pithoi*. Water jugs have closed forms with necks and handles. Two base types – ring and flat – are observed in the Ziyaret Tepe ceramics. Diameters of ring bases vary between 6cm and 11cm. Bases with dents are also represented within ring bases. Flat bases are generally observed in jugs and *pithoi* with flanged and disc-shaped variations.

Monochrome glazed wares mostly have green or, less commonly, blue (or turquoise) glazes but there are few brown and yellow glazed fragments [Fig. 9: C]. An important observation made during our 2006 study season is that the green and blue/turquoise wares have different fabrics and shapes. The blue/turquoise wares have a distinctive light gray and brown fabric. Likewise, the blue/turquoise wares have a range of fabric textures, both soft and hard. In general, the interiors are fully glazed but exteriors are rarely glazed. The differences between the green and blue/turquoise wares suggests that they are possibly being produced at different centers, although both may be produced at the same site. Light green dominates the glazes of the polychrome sgraffiatos. Purple, green, and mustard colors are used individually or in various combinations in order to enhance the sgraffiato decorations.

Glazed ware fragments with under-glaze painted decoration show considerable intra-group variation. This group includes a Raqqa-type transparent under-glaze blue-black painted base, a blue/turquoise under-glaze black painted base, body, and dish rim fragments. These types of ceramics, which are sometimes considered local imitations of Syrian types are widely produced and used during 13<sup>th</sup> and 14<sup>th</sup> centuries at Samsat, Korucutepe, Ahlat and Hasankeyf. Shapes, decorative elements, and technical



characteristics of the other under-glaze base and lid fragments imply that these are local imitations of 15<sup>th</sup> century Ottoman blue-whites. They have thick white slip, and transparent, lusterless glaze. Their fabric colors are pale yellow and light brown. Base fragments display a different application; and similar dark green under-glaze bases were found at Hasankeyf.

Looking regionally, monochrome glazed wares and polychrome sgraffiatos dominate the Ziyaret Tepe pottery assemblage, like the other settlements in Turkey that have Medieval layers. But the domination of green glaze in monochrome wares is noteworthy for Ziyaret Tepe. Fabrics with limestone and mica inclusions of this group are similar to 13<sup>th</sup> and 14<sup>th</sup> century ceramics of Gritille, Hasankeyf, Samsat, Aşvan Kale, and Korucutepe (Redford 1986: 103-106; Öney 1982: 71-80; Bakırer 1980: 189-249; Mitchell 1980: 69-228). Some of these sites are located in the neighborhood of the Euphrates and Tigris Rivers. These rivers were important waterways for centuries on the trade route extending from east to west, from south to north, from the Persian Gulf to the Mediterranean Sea and cities founded around these rivers became trade centers (Orhonlu and Işinsal 1962: 77-102; Tuncel 1994: 281-282). Raqqa, Baghdad, and Mosul were among the important cities on sides of these rivers. Intensive trade relations and social interactions of this region naturally influenced the ceramics which could be transported easily. Samsat, Korucutepe, and Hasankeyf were the important ceramic production centers in the region. The nearest of these sites to Ziyaret Tepe is Hasankeyf, which was an important trade center with its significant bridge over the Tigris River. The production of monochrome glazed wares, polychrome sgraffiatos, under-glaze color decorated wares, and unglazed wares continued until the 16<sup>th</sup> century in this region. At this point, our preliminary interpretation is that the majority of the Ziyaret Tepe ceramics are Hasankeyf products, dated between the end of the 13<sup>th</sup> century and the 15<sup>th</sup> century. Shapes, motifs, and colors of the polychrome sgraffiatos have similarities with the Korucutepe, Aşvan Kale and Ahlat examples, dated between the second half of the 13<sup>th</sup> century and beginning of 14<sup>th</sup> century (Karamağralı 1982: 391-462; Karamağralı 1991). Only a few body fragments could be considered as 12<sup>th</sup>-13<sup>th</sup> century Al-Mina examples (Lane 1938: 19-78).

### **Small Finds**

A number of small finds of Medieval date have been found at Ziyaret Tepe. First, although not discovered during excavation, several datable coins were found during the initial survey of the site. In total, eight coins have been discovered at Ziyaret Tepe; all are bronze and in varying states of preservation [Fig. 11]. Two of the coins (ZT 0003 and ZT 11105) were pierced and could have been worn as amulets (for Islamic coins worn as amulets see Fodor 1988: 11, 140). All the coins, with one exception (ZT 0004), can be associated with the Medieval occupation at the site. Further, it is possible that ZT 0004 may have been re-used in the later period. There is little information from the region for coin circulation during the Medieval period, but various coin hoards, often reported with no definite find spot, seem to have been primarily deposited in the 13<sup>th</sup> century, perhaps in reaction to the Mongol conquest. Söylemez and Lightfoot record coins found in the course of Algaze's survey of the region, but these coins come from villagers rather than

the survey itself (Söylemez and Lightfoot 1991: 313). Find spots can only be approximated. Further, the coins were almost exclusively early and the latest coins are Middle Byzantine. No Middle or Late Islamic coins were recorded. For coins from the Euphrates area see: Schneider 1970; Mitchell 1973; Van Loon 1980; Moore 1993; Redford 1998; Heidemann 2002. For references to the Mongol conquest see Lowick et al. 1977: 14-15, 17-18). One example, the Mardin hoard, includes both Byzantine and Islamic coins. The Islamic coins were all minted in Mardin and Erzurum (Lowick et al. 1977: 27).

The coins are presented here in chronological order. The earliest coin (ZT 0004) dates to the Early Byzantine period [Fig. 11: F]. This coin, which is very worn, dates to the reign of the emperor Heraclius. The folles is a Class 3 folles that shows on the obverse Heraclius in the center with Heraclius Constantine to his right and Martina (who is not at all preserved) to his left. The reverse is very hard to read but appears to be Year XII, which means that the coin would have been struck in AD 621/622. It seems to have been minted in the "A" officina. The mint name itself is extremely hard to read and may be Constantinople or Nicomedia [Greirson (1968): 89-96 (Constantinople), 162-164 (Nicomedia). In neither example is a Year 12 folles published] and was overstruck. The coin could have been dropped at the site during the Early Byzantine period by a traveler, as there seems to be no indication of settlement in this period. Another possibility is that the coin could have been lost in the course of a military campaign. The region fell to the Persians in about 609 and was visited by Heraclius on campaign in 624, although he was ultimately forced to withdraw westwards to the Euphrates. In 628, Heraclius is supposed to have proceeded in the vicinity of Amid to spend the rest of the winter which indicates that the city was back in Byzantine hands at that point (Kaegi 2003: 39, 67, 131). The third possibility is that the coin was in circulation during the Medieval period and dropped by an inhabitant of the village at this time. In the absence of any accompanying pottery evidence, this scenario seems the most likely (see Vorderstrasse in press). Other material was found at Tell Kurdu which leads to the suggestion that it might have been a military encampment in this period in that instance. Söylemez and Lightfoot (19xx: 317) record the presence of a coin of Heraclius of the same type as the one recorded here (dating to 626/7 and minted in Constantinople). There is no indication that this coin would have been re-used in later periods, however, since its context is lacking. Similarly, Redford records the presence of a coin of Justinian I that could have been used as currency at medieval Gritille (Redford 1998: 159). Further, evidence from the Mardin hoard points to the presence of Early Byzantine coins still in circulation in this period as does the fact that the Artuqids copied coins of Heraclius and other rulers (Lowick et al. 1977: 14-15, 17-19). The earliest coin in the Mardin hoard dates to Anatasius (491-518 AD). The hoard also included 10 coins of Heraclius, one of which had a countermark, with 8 folles minted in Constantinople in years 3, 6, and 23, one folles of Nicomedia of Year 8, and the countermark was on a coin of Constantinople of Year 10 (Edhem 1894; Lowick 1974; Lowick 1985; Spengler and Sayles 1996. For other examples of this phenomenon see Morrisson 1983; Vorderstrasse forthcoming).

ZT 0003 [Fig. 11: E] is a copper coin that is badly effaced, but it is probably a coin of Ilkhanid Ghazan Mahmud (1295-1304) minted in Erzincan (Lane-Poole 1881: 42-

43, nos. 122-123). ZT 20586 [Fig. 11: A] is a copper coin of Abu Sa'id (1316-1335) (Lane-Poole 1881: Nos. 264-265. Mint and date illegible). ZT 0007 [Fig. 11: G] is copper coin from the mint of Semnan dating to the reign of Sati Bek Han (1338-1339) (Aykut 1992: No. 845). One might have expected the coins from Ziyaret Tepe to come from local mints, but Semnan is located in Iran, east of Tehran. It is not uncommon to find coins minted in Iran in eastern Anatolia. McNicoll records an Ilkhanid coin from Taksun Kale minted in Tabriz (McNicoll 1983: 189) while other Ilkhanid coins from Taksun, Asvan, and Korucutepe were minted in Erzincan (McNicoll 1983: 189; Van Loon 1980: 264). ZT 5540 [Fig. 11: H] is an Ak Koyunlu coin of Jahāngir (1443-1453) minted in Amid (Diyarbakır) (Rabino di Borgomle 1950: 138, No. 127 incorrectly attributed to Qasim; Album 2001: No. 2). In addition, there are three other coins which still need to be identified. ZT 0234 [Fig. 11: D] may be Mamluk in date and ZT 11105 [Fig. 11: B] and ZT 1044 [Fig. 11: C] are still not identified. The majority of the coins are late 13<sup>th</sup> or early 14<sup>th</sup> century, however.

In addition to the coins, there was what appeared to a lead seal (ZT 20083, L-301), unfortunately illegible. The seal resembles in a general sense Byzantine seals that were used on the eastern frontier in the 10<sup>th</sup> and 11<sup>th</sup> centuries (McGeer et al. 2001), as well as Crusader seals imitating Byzantine types from Edessa (Schlumberger 1943: 99). Byzantine Greek lead seals were found at Aşvan Kale in 12<sup>th</sup>/13<sup>th</sup> century levels but are unfortunately unpublished (Mitchell 1980: 55). The dating or further identification of the Medieval lead seal from Ziyaret Tepe would be purely speculative.

A bronze ring (ZT 19037, L-205) shows a stylized inscription commonly found on rings of this type (Content 1987: 128, no. 79 Safavid, 15<sup>th</sup>-17<sup>th</sup> centuries) [Fig. 12]. ZT 19037 appears to date, following Content's dating system, to either the 15<sup>th</sup> or 16<sup>th</sup> century (Content 1987: 128, no. 79; Wenzel 1993: 132, no. 417). Rings from earlier periods have been found in large numbers at Aşvan Kale where they found several bronze seal rings. One of these has a circular seal which is in shape (although not design) similar to the one at Ziyaret Tepe, but the way the ring is drawn makes it difficult to see how tall the seal part of the ring is in reference to the ring itself (Mitchell 1980: 234-235, No. 60 circular seal ring). It is hoped that further study will clarify the dating of the ring and produce more exact parallels.

In the course of excavating the Medieval levels, a number of small horseshoe-shaped objects were found. Horseshoes are a common find at Medieval sites in Anatolia and elsewhere in the Near East, but usually the width of the metal that makes up the shoe is quite wide (Stronach 1963: Pl. 74.23 photo, Pl. 75.23 drawing; Ploug and Oldenbourg 1969: 58, Fig. 22.1 and Fig. 23.1; Grabar et al. 1978: 185, 4b; Van Loon 1980: Pl. 116A (5 cm long and 7.5 cm wide); Moore 1993; Redford 1998: Fig. 4:3 A-C; Raphael 1999: Fig. 10; Grey 2000: No. 39. For modern farriers, see Wulff 1966: 53-54). At Korucutepe, however, a thinner shoe that more closely resembles the shoes from Ziyaret Tepe was found. Both ends of the horseshoe had been sharpened and bent at right angles to serve as additional nails (Van Loon 1980: 255, Pl. 115N. This shoe is 7 cm long and 6.5 cm wide). Similar shoes are also found in Russia and Bulgaria where they are connected with the Mongol cavalry (Nedashkovsky 2004: 39). These horseshoes seem very small, a fact

which is commented on by the excavators at Korucutepe (Van Loon 1980: 255). Some have been identified as donkey shoes, but this seems to be based primarily on their size. She suggested that there are also donkey shoes which measured 8cm long and 6.5cm wide while the horseshoes were 11cm long and 10cm wide (Mortensen 1993: 159, 179). Other metal objects found include a very large number iron studs. A similar stud was found at Gritille and is identified by Redford as an iron stud for a leather garment or bag (Redford 1998: 162. For similar studs see Stronach 1963: Pl. 74. 20 photo, 75.20-21 drawing; Van Loon 1980: Fig. 4:2, no. 257).

Only a few pieces of glass have so far been studied from the site. No glass from excavations in the Upper Tigris area have previously been published and our nearest point of comparison is the material published from the Euphrates area (Moore 1993; Redford 1994). One of the pieces of glass is part of a foot of a wine glass or lamp. This type of piece is ubiquitous in glass beginning in the Early Byzantine period and continues to be used in the Medieval period (Vorderstrasse 2005: 58-59 with references). Whether or not it came from a wine glass or a lamp remains unclear. Stern used the context in order to determine the function of the glass at Anemurium (Stern 1983: 44), but in a domestic context they could be either. Next season the glass will be studied in more detail and a typology will be produced.

### **Microdebris Study of Medieval Period**

For the past five years, micro-archaeological samples have been taken from excavated features in a variety of contexts at Ziyaret Tepe to provide additional insight into daily activities. This work is directed by Dr. Lynn Rainville, with crucial support provided by site supervisors who help collect samples from diverse chronological and qualitative contexts. In this update, we will discuss the 114 samples collected during the 2006 season from Operation L. Approximately 10 litres of sediment were collected per sample. Each sediment sample was floated and the resultant heavy fraction was poured into four sorting sieves (ranging in size from 1mm, 2mm, 5mm to 8mm) to increase the ease of separating small artefacts from geological material. Analyzing the micro-artefacts in the heavy fractions provides valuable qualitative and quantitative data on everyday activities from domestic and non-domestic contexts. Micro-artefacts are defined as those under 1cm in size and most often include small pieces of ceramics, lithics, animal bones, plaster, bitumen, plaster, and beads. Qualitatively, the micro-artefacts provide information on personal adornment (e.g., earrings, bronze pins, and perforated shells), construction techniques (e.g., iron studs, nails, and rods), and accounting practices and/or games (e.g., tokens of various sizes). Earlier reports provide a complete discussion of the micro-debris methodology (Matney et al. 2003: 194-197; Matney and Rainville, eds. 2005: 37-39; Rainville 2005).

During the 2006 Ziyaret Tepe season, 114 micro-archaeological samples were collected from four trenches in Operation L. These samples came from diverse features and contexts in order to provide a reference for the distribution of micro-debris across a synchronic and diachronic perspective. As discussed elsewhere in this report, Operation L contained four stratigraphic levels: the most recent dated to the Ottoman Period and

contained evidence of stone tent foundations that lacked associated *tannurs* or storage pits. Beneath this layer were Medieval Period remains that included mudbrick buildings, *tannurs*, and trash pits. The third identifiable period was Late Iron Age in date and characterized by heavy pitting, often cutting through the lower Late Assyrian level. Finally, the Late Assyrian level, although heavily damaged by the pits, contained a cobble and baked brick courtyard with traces of mudbrick walls. Micro-archaeological samples were collected from 47 features in these four levels. The majority of these features were supra-floors (material lying approximately 5cm above the floor level, totaling 49 samples) and pit contents (totaling 26 samples). Other sampled features include floors (6 samples), *tannurs* (15 samples), room fill (9 samples), building collapse (2 samples), and tertiary contexts for comparison (3 samples). The results from these samples enable us to refine our collection strategies and enhance our understanding of the formation processes that structure the remains in our trenches.

### *Medieval Glass Debris*

Because this past season was the first time that Medieval and Ottoman levels were intensively sampled at Ziyaret Tepe, it provided us with a new set of micro-artefact types to study. These types included glass fragments (from Medieval beakers and cups), Medieval bead forms, and glazed sherds. Ironically, although glazed sherds are obvious at the macro-level, a piece chipped from a vessel often loses its thin coating of glaze, making it difficult to identify Islamic-period sherds via glazing among micro-artefacts. To the contrary, micro-archaeology is perfectly suited for recovering glass shards and developing form typologies for Medieval glass vessels which preserve poorly at the macro-level. Seven shards of glass were recovered from the Medieval levels, including green, clear, and amber colored shards. For example, micro-debris sample 1701 (ZT 19047) contained two very small pieces of glass, less than half a centimeter in size. One glass piece (ZT 21514) was blue-green in color, and although very fragmentary, Vorderstrasse identified it as part of a vessel 4cm in diameter which dates to the 12<sup>th</sup> through 14<sup>th</sup> centuries A.D. The second piece of glass (ZT 21513) was also blue-green and probably dates to the Medieval period. It most likely from a beaker or vase, such as the complete example of a beaker from Tille Hüyük which probably dates to the 12<sup>th</sup> or 13<sup>th</sup> century (Moore 1993: Fig. 93.251) and glass from Gritille that dates to the 13<sup>th</sup> century (Redford 1998: Fig. 4:7W, 4:7Y, 4:7AA, 4:7CC). These micro-shards were recovered from a *tannur* sample (L-205) located in trench N1090 E1030. In addition, the fill (L-228) from the areas west of Room 1202, adjacent to *tannur* L-210 contained an amber-colored rim from a Medieval cup (ZT 21537). Because the vessel itself was absent from the feature, the shards were probably deposited into the archaeological record from vessels chipped during use. If so, these remains may be from a vessel that was used in conjunction with bread production or as part of the kitchen assemblage of a Medieval house. Although our current sample size is small, the future recovery of such small fragments from an artefact type that is rarely preserved at the macro-level (i.e., a complete glass vessel) will hopefully allow us to reconstruct Medieval vessel forms that are otherwise not visible in the archaeological record.

### *Medieval Features*

Micro-archaeology can provide additional insight into the function of features. In Fig. 13 we calculated micro-artefactual signatures for different types of loci. For example, trench N1080 E1030 contained a heavily pitted level that dated to the Late Iron Age. Micro-debris samples were taken from 11 pits, totaling 14 samples (some pits were sampled from both the top and bottom). By calculating the density of micro-artefacts (both quantitatively in terms of sherd, bone, and lithic counts and qualitatively, in terms of ceramic wares, animal species, and lithic raw material types), we can define a micro-archaeological signature for each pit. These data can be used to infer the function of storage pits where the original, stored materials were removed in antiquity. Taken together, the 11 pits had a mean micro-ceramic density of 0.96 sherds/litre, 4.5 bones/litre, and 0.38 lithic fragments/litre. Compared to the 8 pits sampled from other layers in Operation L, these 11 pits had a low overall density of ceramics, bones, and lithics. But their ceramic-ware signature included a high density of sandy wares, very few cooking wares, and an average amount of fine and coarse wares. The distribution of lithic raw material types also provides a clue as to the original function of the pits in this level. Pits L-273, L-277, and L-278 contained a high density of red, tan, and dark brown debitage respectively. This technique is also useful for analysing trash pits because it provides a quantitative measure of artefact variability. This calculation is often hard to achieve at urban sites where it is not feasible to calculate the quantity of artefacts in each volume of excavated soil.

We can also use micro-artefact count distributions to differentiate room use patterns. For example, in trench N1090 E1030, micro-debris samples were collected from two adjacent rooms, Room 1202 (L-226) and Room 1203 (L-225). Locus-226 contained a high density of micro-ceramics, bones, and lithics, including high densities of tan, red, and white debitage and large numbers of cooking and coarse ware sherds. In contrast, L-225 (located on the other side of a mudbrick wall) contained a high density of lithic debitage, but only dark brown and gray materials, and low densities of both faunal and ceramic debris. This level of activity area analysis should be supplemented by a thorough analysis of the macro-remains from these two rooms. Finally, this trench contained six small glass shards that reveal a glass-vessel assemblage that is invisible among macro-artefacts.

### *Micro-Ceramic Types*

Because we have collected count densities of ceramic wares per sampled feature we can quantify the relative distribution of pottery types within Operation L. Not surprisingly, the most commonly recovered ceramics were sandy wares (with a mean density of 0.8 pieces per litre from micro-archaeological samples). The next most frequent type was fine-ware vessels (with a mean density of 0.2 pieces per litre), followed by coarse wares (0.1 pieces per litre), and finally, cooking wares (0.04 pieces per litre). These micro-sherds may correlate with chipped vessels. If so, the micro-ceramic densities are a better indicator of the complete ceramic assemblage used in any room than often intrusive, larger sherds. Micro-debris samples are particularly useful for studying cooking wares. Because of their sturdy construction and long-term use, sherds from cooking pots



are rarely recovered from excavated samples at Ziyaret Tepe (Keskin, personal communication). However, because of the systematic nature of micro-debris collection, a larger percentage of samples contained cooking wares (38 of the 114 samples, or 33%). This provides a valuable typology of ware types and pastes associated with cooking wares over a 2,500-year sequence.

### *Bead Typology*

The post-Assyrian micro-archaeological samples provided an additional 2,000 years of bead samples, adding to an earlier effort to create a bead typology for Ziyaret Tepe (Rainville in Matney et al. 2003) [Fig. 14]. Of the 114 Operation L samples, 17 (or 15%) contained beads. The beads collected from these samples ranged from the most common, flat discs to rare hexagonal forms and spheres [Fig. 15]. The materials included gypsum, lapis lazuli, glass, stone, bone, carnelian, and unidentified materials. As a group, these samples may reveal differences in personal adornment, wall hangings, or craft production that may correlate with socio-economic status. Ethnographic parallels illustrate the use of beads in a wide variety of domestic contexts. Since we rarely recover textiles at Mesopotamian sites, beads represent one of the few pieces of domestic decoration that we can recover from archaeological contexts.

### *Activity Areas and Micro-Artefacts*

Because of the systematic sampling of known volumes (usually between 10 and 20 litres) and the discrete horizontal location of most micro-debris samples, micro-archaeology provides us with quantitative baselines for high and low artefact densities. And when “whole earth samples” are taken for micro-archaeology, enabling us to count micro- and macro-artefacts (regularly sized, greater than 1cm<sup>2</sup> artefacts), we can calculate mean densities for sherds, animal bones, lithic debitage, and rarer finds, such as iron nails, metal rods, beads, worked sherds, and bronze earrings. Taken together, these measurements provide a better means for interpreting activity areas and determining high traffic areas. At urban sites it is difficult to keep track of the large volume of earth that is processed from each feature, especially from amorphous features that lack clear edges. Discrete samples from known points with calculated volumes provides a control for both macro and micro-artefact densities at urban sites.

### **Interpretation**

As a preliminary interpretation, the architecture in Level L2 appears to represent the remains from as many as three buildings of Medieval date, possibly in use contemporaneously. The northernmost building, which is the best preserved, has storage rooms, as well as small living spaces, *tannurs*, and surrounding courtyards or open spaces. The size of the rooms and walls, as well as the contents of the rooms, suggests that this was a farmstead. The dating of this occupational layer is reasonably certain from the late 13<sup>th</sup> through 15<sup>th</sup> centuries AD, although it is quite possible that the initial settlement of Level L2 was as early at the 12<sup>th</sup> century AD. The position of the buildings, at the northern edge of the high mound overlooking the broad floodplain of the Tigris



would have been ideal to watch over agricultural fields and flocks in the surrounding area. There is evidence both for the local production of pottery, as well as imports, suggesting that Ziyaret Tepe in the Medieval period was tied into a communication network with established centers such as Diyarbakır and Hasankeyf.

#### LEVEL L3: THE LATE IRON AGE (“PIT LEVEL”)

##### **Architecture and Stratigraphy**

A number of pits of various sizes and depths were found between the Medieval occupation in level L2 and the Late Assyrian levels (L4) in two trenches (N1090 E1030 and N1080 E1030) in Operation L. As noted above, glazed pottery sherds coming from within some of these pits indicate that they belong to the earlier building level of the Medieval period (L2b). However, some of these pits appear to belong to an earlier occupational level, which we have called L3. The majority of the pits go down to destroy a Late Assyrian courtyard that was paved with cobbles and baked bricks. Therefore, stratigraphically they belong to a period later than the Late Assyrian building level. The diameters of the pits vary between 0.85m (L-294) and 2.25m (L-272) at the bottom. Four storage pits (L-240, L-241, L-245, and L-403) successively cutting one another as well as the Late Assyrian building level were dug into the same area in the south west of trench N1090 E1030. This strongly suggests that this area was used for storage over a long period of time.

In addition to the pits, a drainage channel (L-409) was cut into the Late Assyrian pavement (level L4), destroying it for a length of a few meters. The north end of this channel, which extends from the western part of trench N1080 E1030 towards northeast and north, is cut by a Medieval pit L-247. The width of the channel, lined with cobbles and mud on the sides and then covered by flat stones, is about 13-18cm. In trench N1090 E1030 two additional drainage channels were also found cut into the Late Assyrian building level; one built of flat cobbles, and the other of 76cm long baked clay pipes with a diameter of 12.5cm (L-410 and L-411). Both are cut by a pit. Apart from the pits and drains, a few stones that could have been wall foundations were disturbed by later Medieval foundation trenches. Planned excavation in 2007 in the southernmost trench in Operation L, where these deposits are thickest and better preserved, may bring to light a better understanding of the function of these drainage channels.

##### **Ceramics**

While the architecture from this period is uninformative, consisting mostly of pits, the ceramic remains are, on the contrary, quite important for understanding the occupational history of the region. A type of pottery observed in this area supplies us with important information about the dating of these pits and architectural remains that are stratigraphically positioned between the Medieval and Late Assyrian and Medieval levels.

This pottery group, described below, comes from the pits and especially from the fill in the northern part of N1090 E1030.

This type of Late Iron Age pottery, referred to as “triangle ware” and “festoon ware” because of their painted decoration, has been reported from Üçtepe (Sevin 1990: 105; Köroğlu 1995: 28, fig. 5), Kavuşan (Kozbe and Köroğlu in press), Giricano (Schachner 2002: fig 15) where Schachner dates this painted pottery to the Early Iron Age, based on style, and Salat Tepe (Ökse and Alp 2002: fig 15, second and fourth on the bottom; fig 16 on the middle) in the Upper Tigris region. In all these mounds this painted pottery is associated with post-Late Assyrian occupational levels. At Üçtepe, there are two building levels (5<sup>th</sup> and 6<sup>th</sup> levels) above the Late Assyrian level (7<sup>th</sup> Level), associated with this pottery, which are Hellenistic in date. At Üçtepe, there are no signs of settlement in between the two periods. This type of pottery was also found in the earlier phase of a Hellenistic building at Elazığ/İmikuşağı (Sevin 1995), and above Urartian levels in the Van area. This pottery, which has a wide distribution area including eastern Anatolia (Sevin 1998) and northwest Iran, seems to represent the end of the Late Iron Age tradition and the Hellenistic period according to stratigraphic data from the Upper Tigris region.

Some of the examples from Ziyaret Tepe belong to jars with handles and painted decoration on them. On the shoulders there is festoon decoration in between two horizontal bands, and triangular motifs extending from the bands towards the bottom, all in red paint. In addition to these, bowls with red painted inverted rims and undecorated bowls with flaring rims also belong to this group [Fig. 16].

### **Interpretation**

The presence of a long period of pitting at the site of Ziyaret Tepe in Operation L accords well with our discovery of similar post-Assyrian pitting in Operation A during the 2000-2003 excavation seasons. The recognition that, in addition to Medieval pottery, there was a significant deposit of Late Iron Age or Hellenistic pottery fills in a lacunae in the occupational history of the site, although a detailed analysis of the pit contents is required before a detailed chronology of the post-Assyrian, pre-Medieval levels can be presented.

#### **LEVEL L4: LATE ASSYRIAN PERIOD**

### **Architecture and Stratigraphy**

The Late Assyrian building level in Operation L was reached in two trenches (N1090 E1030 and N1080 E1030) in the 2006 campaign. As noted above, the Late Assyrian building level was disturbed, quite heavily in places, by later pits, drainage channels and the Medieval foundation trenches. The principal feature of the Late Assyrian level L4 was a cobble and baked brick paved courtyard (L-402, L-287) oriented NW-SE and measuring 10.00m by 8.30m in extent [Fig. 17]. The eastern part of the courtyard was paved with medium and small cobbles and the western part with baked bricks. However,

these baked bricks are not perfect squares: three sides measure 28cm, and the fourth measures 23cm. Narrow pebbles were on edge, end-to-end, in the mortar between the baked bricks. While the pavement does not suggest precise craftsmanship, it reminds us of the courtyard pavement found in Operation K in the lower town (Matney and Rainville 2005: 31-35). On the southeast of the courtyard was a well contemporaneous with the pavement.

The wall surrounding the courtyard pavement did not survive because of the later disturbances. Only in the northwest corner, on the southeast edge, and on the south were there traces of mudbrick that can be associated with the surrounding wall. These suggest that the courtyard was surrounded by 70-80cm wide walls without stone foundations. The main building associated with this courtyard was probably located to the west of the excavated area. Just outside of the mudbrick wall to the south of the courtyard were found two intrusive child burials.

## Ceramics

The pottery from the Late Assyrian levels in Operation L has only been examined cursorily. In general, the pottery that came from the fill of the level L4 pavement and associated building is similar to that found in Operations A, K, and G, all firmly dated to the Late Assyrian period. A complete bowl (ZT 19370) found in a *tannur* (L-406) that did not survive in good condition just outside of the courtyard wall on the northwest also supports this dating. The ceramics associated with the Late Assyrian pavement are typical of those from other Late Assyrian sites of the 7<sup>th</sup> century BC.

One of the goals of the study season of 2005, as well as the 2006 excavation season, was the continued processing of pottery excavated from the Late Assyrian levels in Operation G in 2001-2004. This is the largest and most architecturally coherent area of Late Assyrian date at Ziyaret Tepe, hence, it is the logical starting point for creating a Late Assyrian ceramic typology for the site. So, while the report that follows does not describe the Operation L remains *per se*, they do describe a contemporary corpus of materials from Operation G currently under analysis. This portion of the report was written by Azer Keskin, who is in charge of processing the Late Assyrian ceramics from Ziyaret Tepe. Accordingly, the majority of the pottery coming from floor and suprafloor (defined as the debris up to 5cm above the floors) contexts were processed, and a preliminary ware and form typology was established based on the pottery processed so far.

The great majority of the Late Assyrian sherds fall into a single ware type. This ware is most frequently reddish brown in color, but can also be brown, yellowish or orangey brown, or red, in decreasing frequency. The fabric has occasional to common fine black and white mineral inclusions, and sparse to occasional fine and/or medium vegetal inclusions. Mica inclusions are observable in virtually all sherds and, therefore, was probably in the natural clay, rather than as an addition by the potters. The ware is usually well fired, with the core the same color as the paste, although it may also be grayish, especially with vessels with thicker walls. The surfaces are either left untreated, or wet-smoothed. Approximately one-fourth of the sherds of this ware are burnished, mostly on the exterior. Generally, open forms are burnished horizontally, and closed forms vertically or in

both directions. Common forms associated with this ware are bowls, followed by jars, and beakers. Small cups and potstands are also represented in smaller numbers.

Bowls make up the most common forms among all Late Assyrian pottery from Operation G. Shallow bowls most commonly have everted rims, with flat [Fig. 18: A, B] inclined [Fig. 18: C, D] tops. The diameters range from 11cm to 27cm. Deeper bowls [Fig. 18: E-F, H-J] most commonly have thickened/rolled rims, sometimes inverted on the lip [Fig. 18: E, F, I]. Similar published examples come from other Assyrian sites from a wide area, including Nineveh (Lumsden 1999: fig. 4:10), Tell Ahmar (Jamieson 1999: fig. 1:10), Sultantepe (Lloyd and Gökçe 1953: fig. 7:18), Tell Rad Shaqrah on the Khabur Valley (Reiche 1999: Fig. 5:k,m), Qasrij Cliff (Curtis 1989: figs 10:29, 28: 86, 92; 29:99, 100, 102), Tell Schech Hamad (Kreppner 2006: Taf. 46:7, 51:3,6), Seh Gubba (Green 1999: fig 7:1), and Tell Sheikh Hassan (Schneider 1999: Abb. 6:5). As can be observed from Figure 18, these are larger bowls on average, with larger average height and diameter. A bowl type that is similar to the shallower bowls in terms of rim shape, but to deeper bowls in terms of general size and shape was also observed [Fig. 18: G], but in small numbers. Apart from the colors, the main difference of the Ziyaret assemblage from the contemporaneous pottery of the Assyrian heartland is the burnishing on the surfaces. Particularly interesting is the patterned burnishing applied on the interior surfaces of deep bowls, created by application of burnish in vertical bands.

Jars, which make up the second most common form group, vary considerably in size, from small jars to large storage jars. The diameters or rim types by themselves do not necessarily indicate the size of the vessels as a whole (compare, for example, Fig. 19: C, E], therefore it is at this point difficult to evaluate the relative frequency of various jar types at the site. However, rolled rims with triangular lips seem to indicate larger jars with oblong bodies [Fig. 19: A, D]. This rim type follows thickened/rolled rims in frequency [Fig. 19: C, F, E], which are the most common among jars, and slightly triangular rims. These types are attested on other Late Assyrian sites, and close parallels include jars from Rimah (Postgate et al. 1997: plate 81: 923,924; plate 82: 950) and Qasrij Cliff (Curtis 1989: fig. 37:228, 239, fig. 40:269). A typical occurrence in jars is a series of horizontal shallow grooves on the shoulder (Fig. 19: A, E]. The bases can be flat [Fig. 19: F], rounded [Fig. 19: C], or pointed disc shaped [Fig. 19: B].

Another pottery group consists of cooking wares. The analysis of this group is not finalized, therefore only a brief description will be given: This ware is distinguished by the common to abundant coarse grit inclusions, and is hand-made into forms that are markedly different from wheel made forms described above. The vessels of this ware are usually of closed shapes, with inverted rims and globular bodies heavily burnished on the exterior, sometimes with horizontal grooves on the upper part of the body. They sometimes have lugs and/or spouts. The color can be red, brown, brownish red, or grey. This ware is uncommon amongst the Operation G pottery, but see the discussion of micro-wares above for an increased frequency among micro-sherds.

To summarize, a great majority of the pottery from Operation G consists of typical Late Assyrian forms. One observation can be the scarcity of fine wares compared to Operation A, which yielded vessels of Palace ware and 'Near Palace Ware' (McDonald in

Matney and Rainville 2005). Although the processing of the pottery is not final, and therefore the results are preliminary, it can be said that glazed pottery is also rare in the Operation G assemblage. The examples that were studied have pink or yellowish pink paste, and cores with the same colors. Forms are restricted to small jars. The glaze is green-blue; with no surviving discernible pattern.

### Small Finds

Of particular importance this year was the discovery of a number of iron artefacts associated with the Late Assyrian level L4. These include: two knives (ZT 19862, L-283 and ZT 19776, L-286) [Fig. 20: A and B] a spear head (ZT 19858, L-285) [Fig. 20: C], an arrowhead (ZT 20923, L-564) and a fragment of scale mail armor. Coincidentally, during the 2006 season, we continued conservation and recording of materials excavated in Operation A in the 2000-2003 seasons. The most important discovery made during the cleaning process was a large corroded mass of scale armor, made of iron, dating to the Late Assyrian period (ZT 8087, A-923) [Fig. 21]. The armor was found on a floor of the Operation A building. Perhaps significantly, one of the cuneiform texts discovered at Ziyaret Tepe in 2002 (ZTT 8, G-710) is an affidavit concerning military garments that are being loaned by a man named Gīrītu to a boatsman. Included in the loan are three armoured undercoats, including a set of scale armour (TÚG.DÙL) which are usually assumed to be made of bronze in the Neo-Assyrian texts. The correlation of the texts and archaeology suggest that iron is a more likely material for such military hardware (Parpola forthcoming). Other important finds from the Late Assyrian period included two bronze fibulae (L-367 ZT 20604; L-245 ZT 19257). The excavations also produced hundreds of iron studs, briefly described above, used to decorate leather, iron harness fittings and nails used for various construction purposes.

### Interpretation

It is clear from the excavations during the 2000-2004 and 2006 seasons that most if not all of the high mound was settled in the Late Assyrian period. Although the courtyard pavement technique is not precise, its size – exceeding 80m<sup>2</sup> – gives the impression that it was a part of a large and important building. No signs of a fire ending the Late Assyrian period were observed and it seems that the mound was simply abandoned. This is consistent with excavation and survey data from a variety of sources, which suggest that the inhabitants of Ziyaret Tepe/Tushhan simply fled at the end of the Late Assyrian empire and were spared a widespread destruction of their city. The continued elaboration of level L4 is a primary goal of our planned 2007 excavation season.

## LOWER TOWN ELECTRICAL RESISTANCE SURVEY

As noted above, subsurface geophysical prospection was continued in the Lower Town at Ziyaret Tepe in 2006 using an electrical resistance survey. Approximately 0.75ha had been surveyed previously in 2004 and the goal of the 2006 survey was to expand that area in the western Lower Town where substantial Late Assyrian architecture lay immediately below the modern ground surface. At the beginning of the season, we experimented with various methods of introducing water into soil in the survey area to improve electrical contact between the resistance meter probes and the soil. The method we used in the 2004 season which involved drilling precisely spaced holes and adding water (Matney and Rainville 2005) was effective, but we hoped to increase the speed of our survey, and hence the size of the area surveyed while maintaining the quality of data. Several test squares were sampled using three methods and then the results were compared for image clarity.

After this period of experimentation, the method chosen for our broad-scale surveys relied on the continuous supply of water that flowed from nearby cotton field irrigation. Water was transported by a 1.5 horsepower, gas-powered pump and sprayed over the 10m by 10m survey squares to be sampled the next day. Each unit was sprayed at least three times and allowed to soak in overnight. The quantity of water and the amount of time allowed for moisture to penetrate the soil deeply enough to provide sufficient contact with the ground. Using a sample and transect interval of 0.5m, during the 2006 season we collected 41,200 data points over an area of 10,300m<sup>2</sup>.

The results of the 2006 electrical resistivity survey show a number of clear features which represent well-preserved subsurface structures, almost certainly dating to the Late Assyrian period, as seen in the preliminarily processed data [Fig. 22: A]. The line of the city fortification wall in the south and west is clearly shown on the final electrical resistance plan [Fig. 22: a]. Two parallel sets of rooms, possibly with an intervening courtyard, can be seen near the Operation G building excavated between 2001 and 2004 [b]. These groups of rooms measure approximately 30m in length by 8m in width. The intervening “courtyard” space is 27m across [c]. To the northeast, a large mudbrick building, at least 25m by 30m in dimension, can be seen. There appear to be at least six internal rooms visible on the electrical resistivity survey [d]. Immediately adjacent to this building on its west side is another large structure. A solid mass of mudbrick approximately 32m by 18m in size may represent a platform of some type [e], while an additional area of mudbrick walls and rooms is visible to the northwest [f]. All of these features may represent the buildings of a single massive complex, perhaps tied to the Operation G building. This building has been tentatively identified as the treasury to the Temple of Ishtar of Nineveh, the patron goddess of ancient Ziyaret Tepe/Tushhan (Parpola forthcoming).

In the northwest corner of the survey area, a single large building with dimensions of 23m by 15m can be seen [g], with at least two large rooms, probably open courtyards. This building is separated from the others by a wide area of high electrical resistivity, perhaps a street during the Late Assyrian period. An area of very low resistance in the extreme northwestern corner of the survey area is probably modern or geological in



nature [h]. Two large circular features – one an area of low resistance [i] and the other of high resistance [j] – remain unexplained.

The 2006 electrical resistance survey allows us to further develop our understanding of the lower city during the Late Assyrian period. We find scattered large buildings, presumably public offices of some sort, with an intervening space showing a low contrast between the walls and rooms. While ground-truthing is necessary to definitively show that these are Late Assyrian in date, the overwhelming surface survey and excavation data over the past ten field seasons suggest that this is the most likely scenario. These intervening spaces between the large buildings may be the location of domestic housing, or other small-scale uses of the site. Linear high resistance features are probably streets, which are poor electrical conductors due to their compact structure. In 2007, we plan to excavate at least one of these buildings in order to test the veracity of our electrical resistivity data.

#### SUMMARY

Perhaps the most interesting discovery during the 2006 field season was the possible location of a nomadic encampment on the high mound at Ziyaret Tepe in level L1. When examining the evidence for semi-sedentary occupation in the Upper Tigris Valley, one finds some information about nomads, primarily from the Ottoman period (16<sup>th</sup> century and later). Early Arab geographers tended not to be very interested in nomadism, but, according to Rowton, the limited evidence from the Medieval period points to a mixture of agricultural and nomadic inhabitants in the Tigris valley (Rowton 1973a; Rowton 1973b: 205; Rowton 1974: 1-3, 8. For the lack of information about peasant rural life in general in this period see Faroqhi 2000: 175. For information about modern nomads see Hütteroth 1969). The region of Diyarbakır provided excellent summer pastures for the flocks of nomadic tribes (Woods 1976: 43). Further, we know both the Turcoman and Mongol invasions brought many nomadic tribes into this region (Woods 1976: 2; Cribb 1991: 12; Golden 2000: 1-2, 5). The region was described by Sykes: “ill-cultivated land and miserable villages were the first things that impressed one.” (Sykes 1915: 357) Level L2 probably represents one of these “miserable villages” which flourished atop the prominent high mound for at least a century, possibly longer within the timeframe of the 12<sup>th</sup>-15<sup>th</sup> centuries AD. Both the Late Iron Age and Late Assyrian remains in Operation L are tantalizing, especially given the discovery of well-preserved iron artefacts in good primary contexts in level L4. These will form the subject of our next campaign and preliminary field report.



## Appendix A: Catalogue of Pottery

8.A. ZT 20590/6, L-360. Handmade cooking pot which has been fire-blackened on inside and parts of outside. D. = 18. Inclusions: common medium vegetal, occasional fine white grit or fine mica. Munsell exterior surface 2.5 YR 6/6 pale red. Interior surface 2.5 YR 5/1 reddish grey. Paste varies from 7.5 YR 6/3 pale red to 10 R 5/1 reddish grey.

8.B. ZT 19086/3 L-211. Coarse ware lid. Inclusions: common coarse vegetal. Munsell external surface 2.5 YR 6/6 light red. Interior surface 2.5 YR light red. Paste is a light reddish brown.

8.C. ZT 20543/6, L-351. Filter neck with pale brown exterior slip. Inclusions: common fine white grit. Munsell external surface 10 YR 8/3 very pale brown. Interior surface 5 YR 8/2 pinkish white. Paste 5 YR 6/6 reddish yellow.

9.A. ZT 20156/1, L-330. Blue glazed rim sherd. D. = 25. Glazed on interior and exterior. Inclusions: occasional fine white grit. Munsell external surface below glaze: 7.5 YR 7/4 pink. Paste 10 R 6/4 light red.

9.B. ZT 19527/2, L-255. Blue-green glazed rim sherd. D. = 28 (18.5% extant). Glazed on interior and exterior. Inclusions: occasional mica and occasional fine black grit. Paste 2.5 Y 8/1 white.

9.C. ZT 19025/8, L-201. Yellow glazed rim sherd. D. = 20 (23% extant). Glazed on interior and exterior. Inclusions: none visible. Munsell exterior surface 10 R 6/3 pale red and 7.5 Y 6/6 olive yellow. Interior surface 5 YR 6/2 pinkish grey and 2.5 Y 6/6 olive yellow. Paste 7.5 R 6/4 pale red.

9.D. ZT 20169, L-333. Sgraffiato base with light yellow, yellow-brown, green, purple glaze. D. = 9.5 (100% extant). Inclusions: occasional fine mica, fine black grit, fine white grit. Munsell exterior surface 2.5 YR 6/6 light red. Interior surface 2.5 Y 8/3 pale yellow, 10 R 4/2, 10 YR 6/8 brown. Paste 10 R 6/8 light red.

9.E. ZT 19501/1, L-251. Sgraffiato sherd with red and green glaze. Inclusions: occasional fine white grit and mica. Munsell exterior surface 2.5 YR 6/6 light red. Interior surface 7.5 R 3/3 dusky red. Paste 7.5 R 6/6 red.

9.F. ZT 20002/3, L-301. Sgraffiato sherd with interior white slip, pale yellow, green, manganese glazes. D. = 20 (12% extant). Inclusions: occasional medium white grit and occasional fine mica. Munsell exterior surface 10R pale red, slip 54R 8/4 pink. Paste 7.5 YR 6/6 Red.

10.A. ZT 16516, L-104. Green and yellow glazed bowl fragment. Glazed on interior. D. = 21 (10% extant). Inclusions: sparse white grit, occasional mica, sand, and grog. Paste 7.5 YR 5/6.

10.B. ZT 1019/4, A-304. Green glazed bowl fragment. Glazed on interior and exterior. D. = 24 (10% extant). Inclusions: Occasional white grit, mica, sand, grog. Paste 5 YR 6/6.

10.C. ZT 1500/2, B-001. Green glazed bowl fragment. Glazed on interior. D. = 24 (5% extant). Inclusions: occasional white grit, mica, sand. Paste 5 YR 5/4.

10.D. ZT 16676, L-115. Green glazed bowl fragment. Glazed on interior and exterior with dark band at rim. D. = 22 (10% extant). Inclusions: sparse white grit, occasional mica, sand, grog. Paste 2.5 Y 7/3.

10.E. ZT 1028/2, A-302. Green glazed bowl fragment. Glazed on interior and exterior. D. = 24 (15% extant). Inclusions: occasional white grits, sand, grog, sparse mica. Paste: 5 YR 5/6.

10.F. ZT 16741, L-116. Green glazed bowl fragment. Glazed on interior and exterior with dark band at rim. D. = 29. Inclusions: sparse white grit and mica, occasional sand. Glaze applied with fine combs with deep grooves. Large lime inclusion have exploded on exterior. Paste 5 YR 6/6.

10.G. ZT 16699, L-116. Unglazed rim fragment. D. = 10 (15% extant). Inclusions: occasional white grit, mica, sand, grog. Paste 2.5 Y 7/3.

10.H. ZT 16595, L-111. Unglazed jar rim fragment. D. = 12 (15% extant). Inclusions: occasional sand, white grit, sparse mica. Rouletted decoration. Corrugated banding around neck. Paste 5 Y 7/3.

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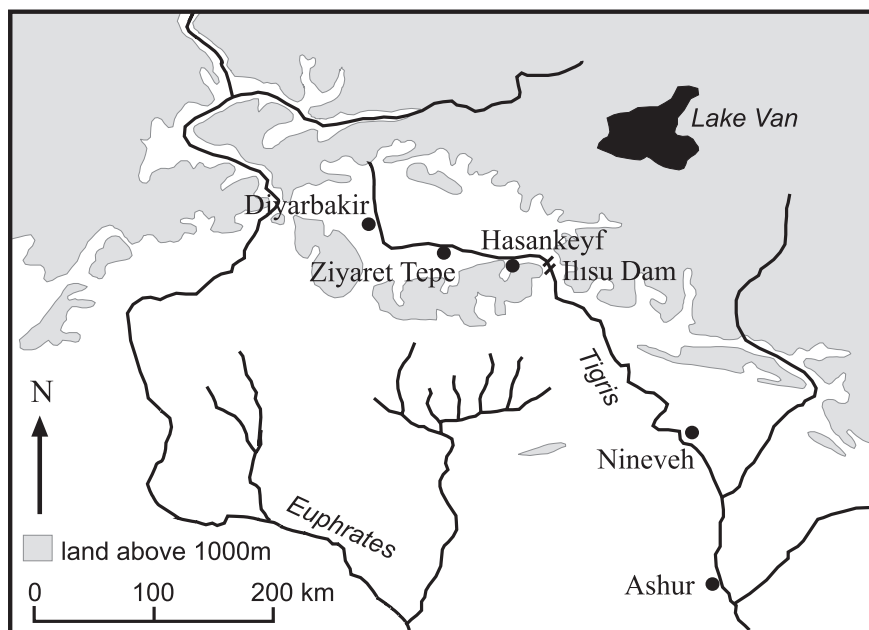


Fig. 1. Regional map showing location of Ziyaret Tepe, Hasankeyf, Diyarbakir, and the Ilisu Dam.

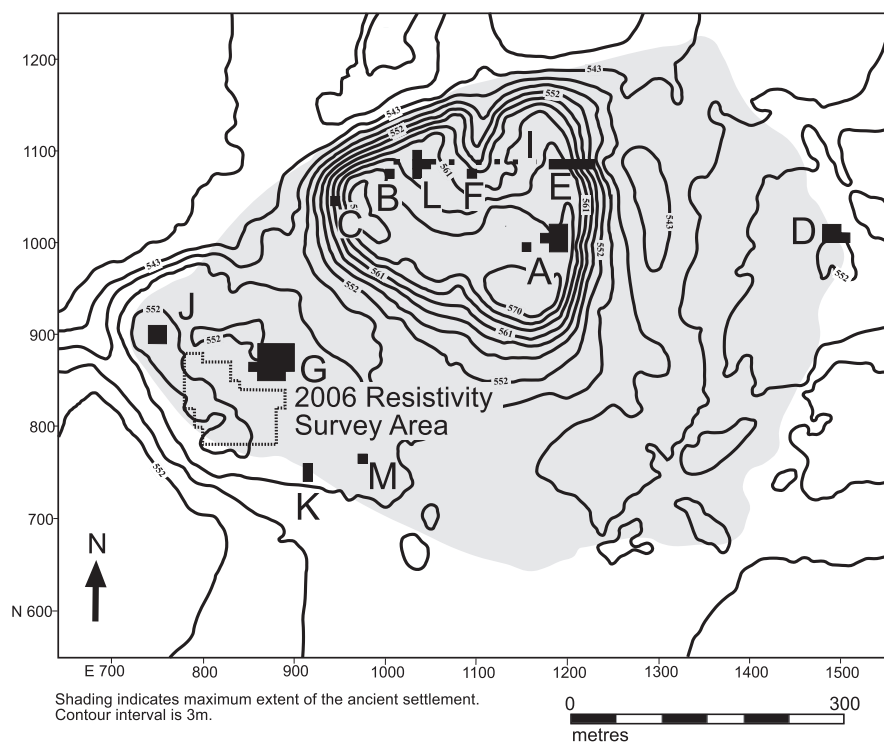


Fig. 2. Topographic map showing areas of excavation at Ziyaret Tepe. Operation L is on the northern edge of the High Mound. The 2006 resistivity survey (dashed lines) is in the southwestern sector of the Lower Town.

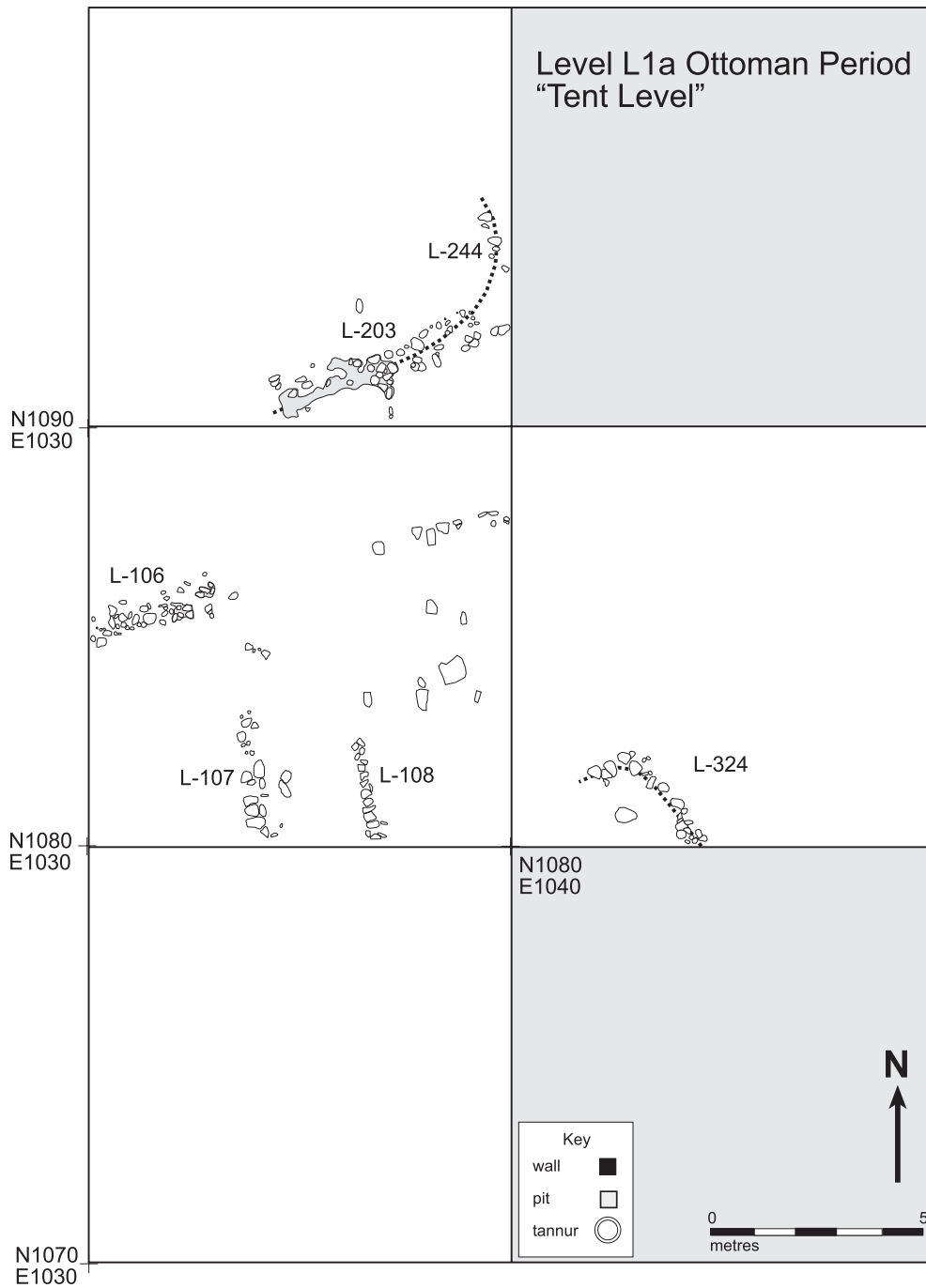


Fig. 3. Plan of architecture from level L1a (the "Tent-level"). These stones were placed at the bottoms of tents to hold them down.

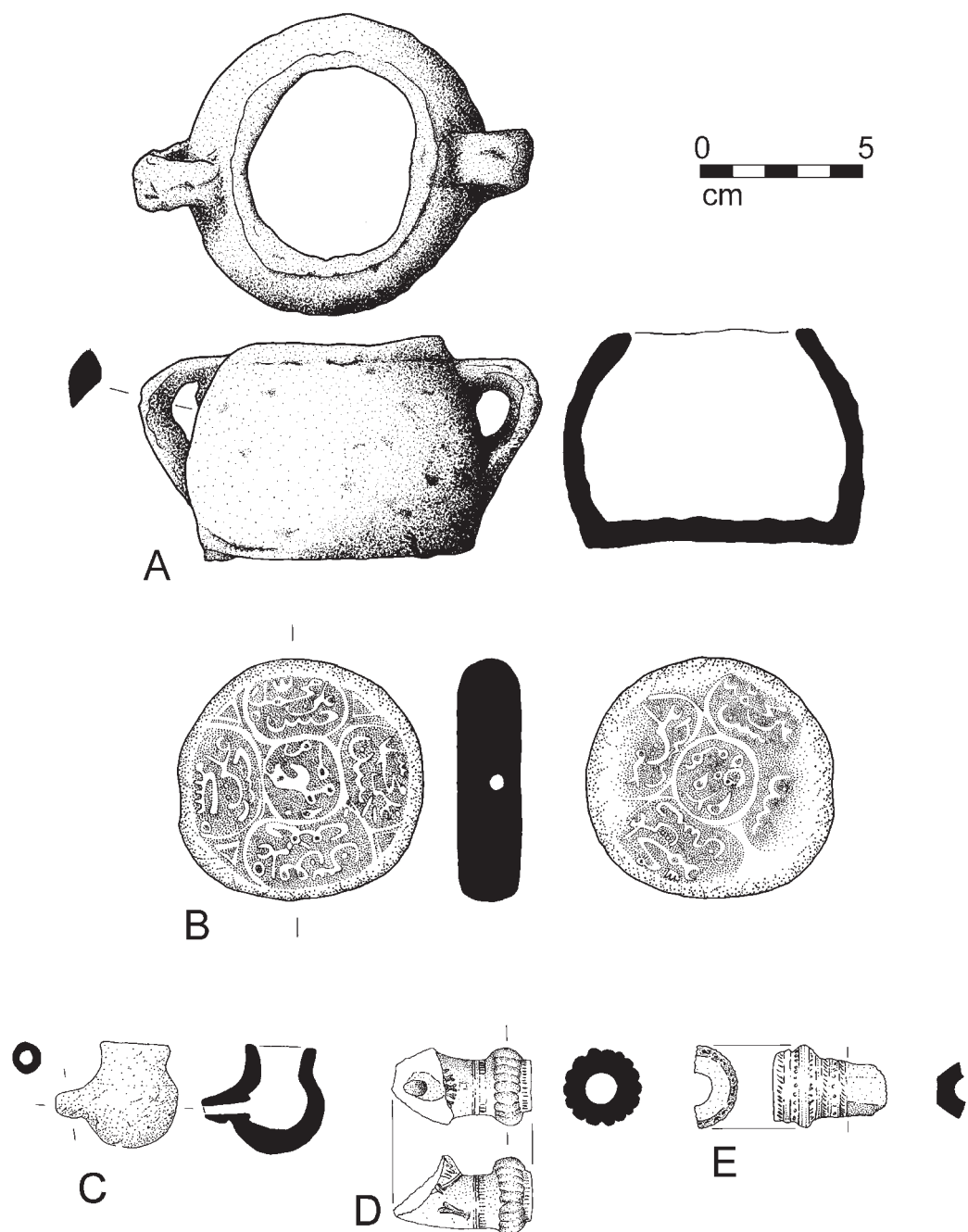


Fig. 4. Finds from the Ottoman period. (A) handmade pot ZT 19513, L-253; (B) clay disk ZT 20057, L-301; (C) clay tobacco pipes ZT 12891, J-063; ZT 0201, surface find; ZT 0206, surface find.





Fig. 6. Medieval architecture from trench N1090 E1030 in Operation L. The flat stones at the edge of the walls (foreground) may represent the bases for wooden posts for a portico.



Fig. 7. Photograph of cow skull and other bones placed as a votive deposit in the foundation trench (L-220) of the latest Medieval building in N1090 E1030.



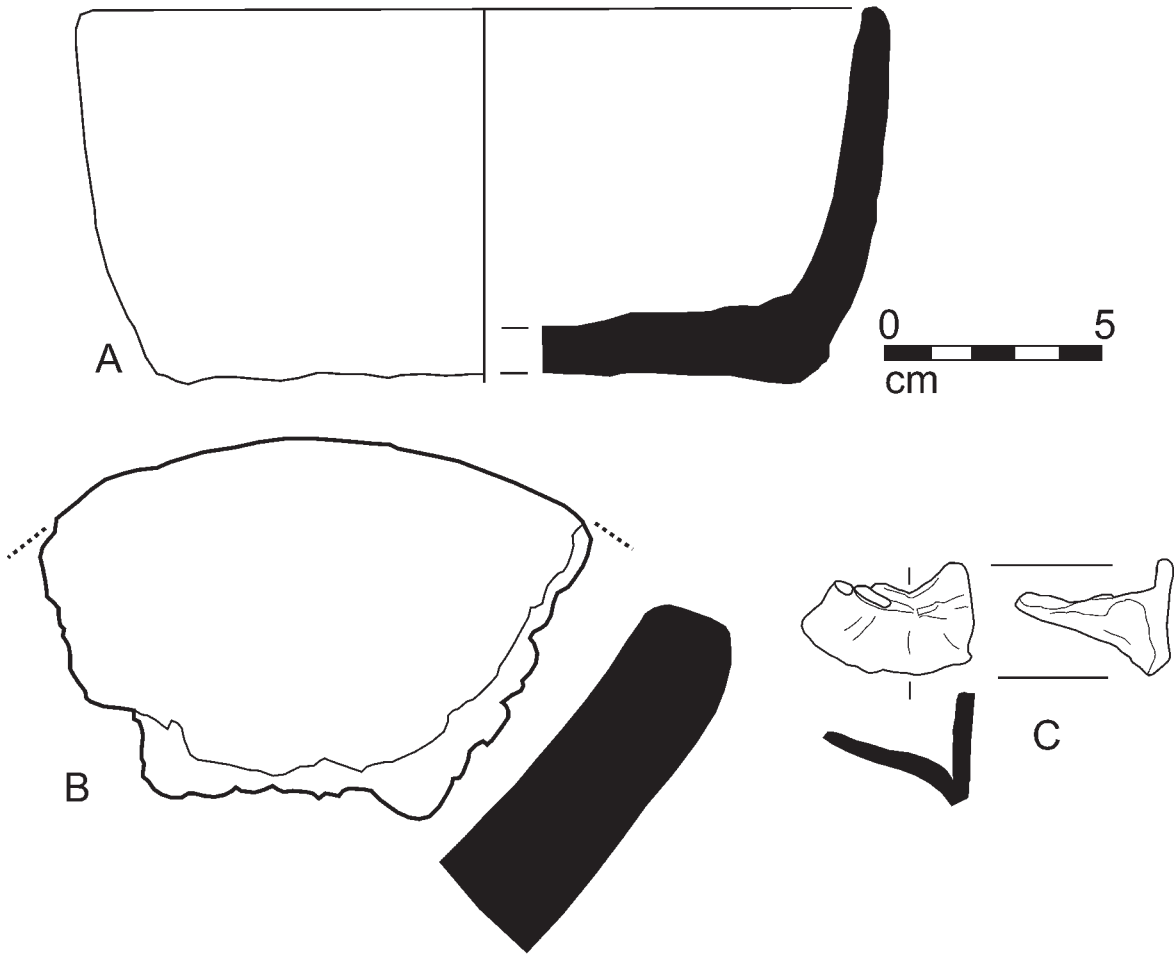


Fig. 8. Medieval pottery. (A) cooking pot ware ZT 20590/6, L-360; (B) cooking pot lid fragment ZT 19086/3 L-211; (C) filter neck ZT 20543/6, L-351.

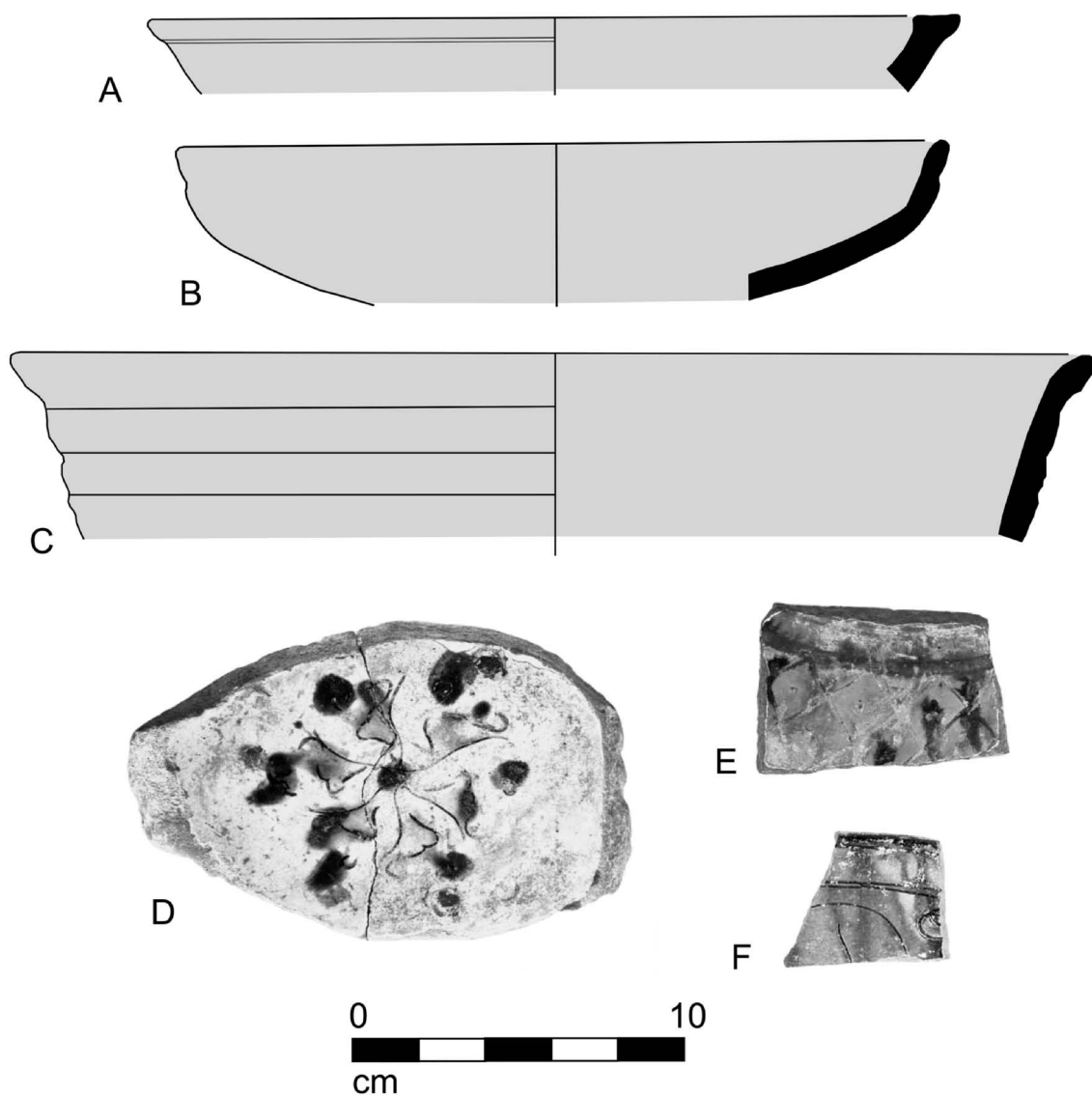


Fig. 9. Medieval glazed pottery. Monochrome glaze ware. (A) ZT 20156/1, L-330 blue; (B) ZT 19527/2, L-255 blue; (C) ZT 19025/8, L-201 yellow. Sgraffiato ware. (D) ZT 20169, L-333; (E) ZT 19501/1, L-251; (F) ZT 20002/3, L-301.

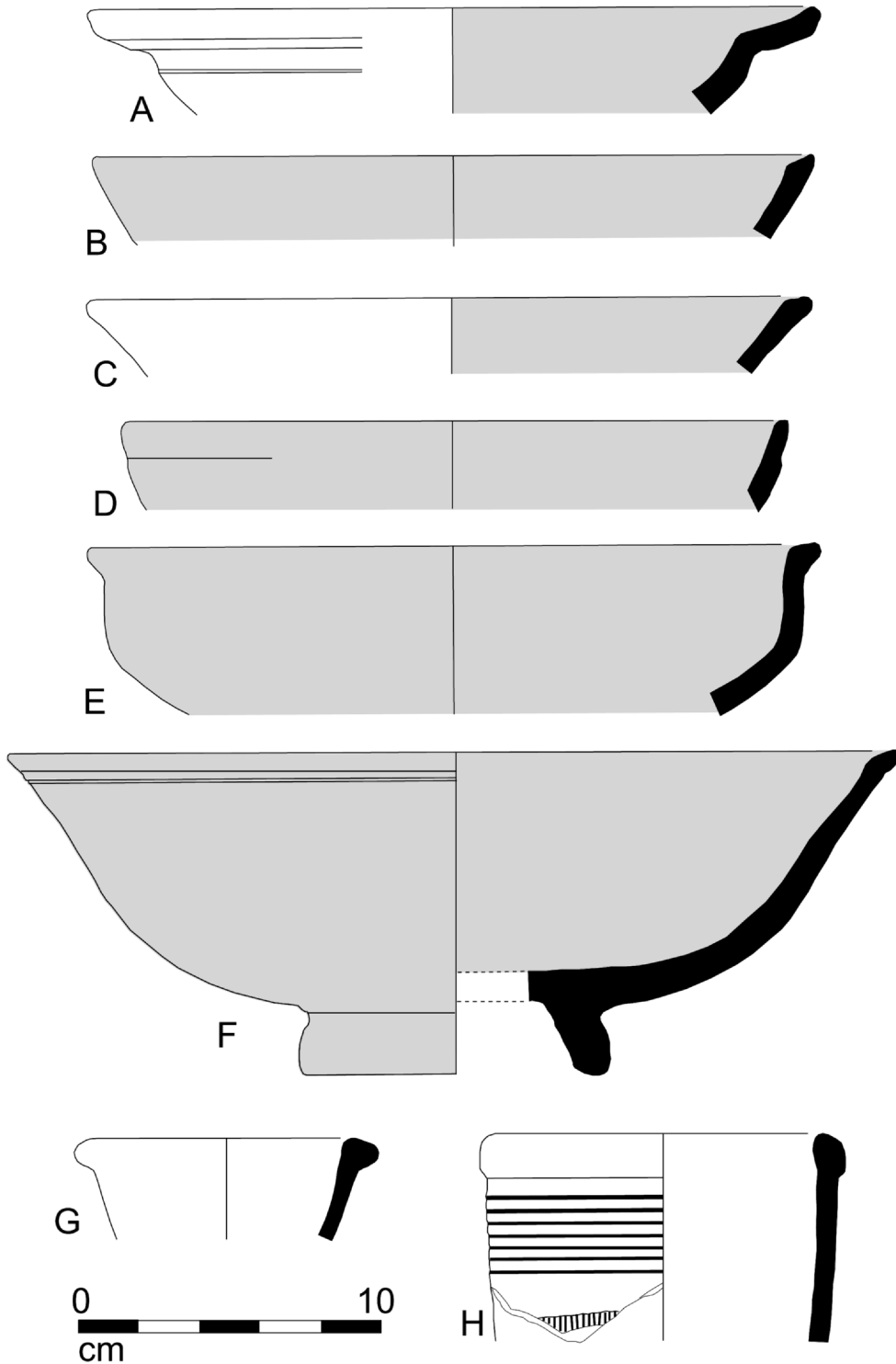


Fig. 10. Medieval pottery from Ziyaret Tepe. Glazed ware forms. (A) ZT 16516, L-104; (B) ZT 1019/4, A-304; (C) ZT 1500/2, B-001; (D) ZT 16676, L-115; (E) ZT 1028/2, A-302; (F) ZT 16741, L-116; (G) ZT 16699, L-116; (H) ZT 16595, L-111.

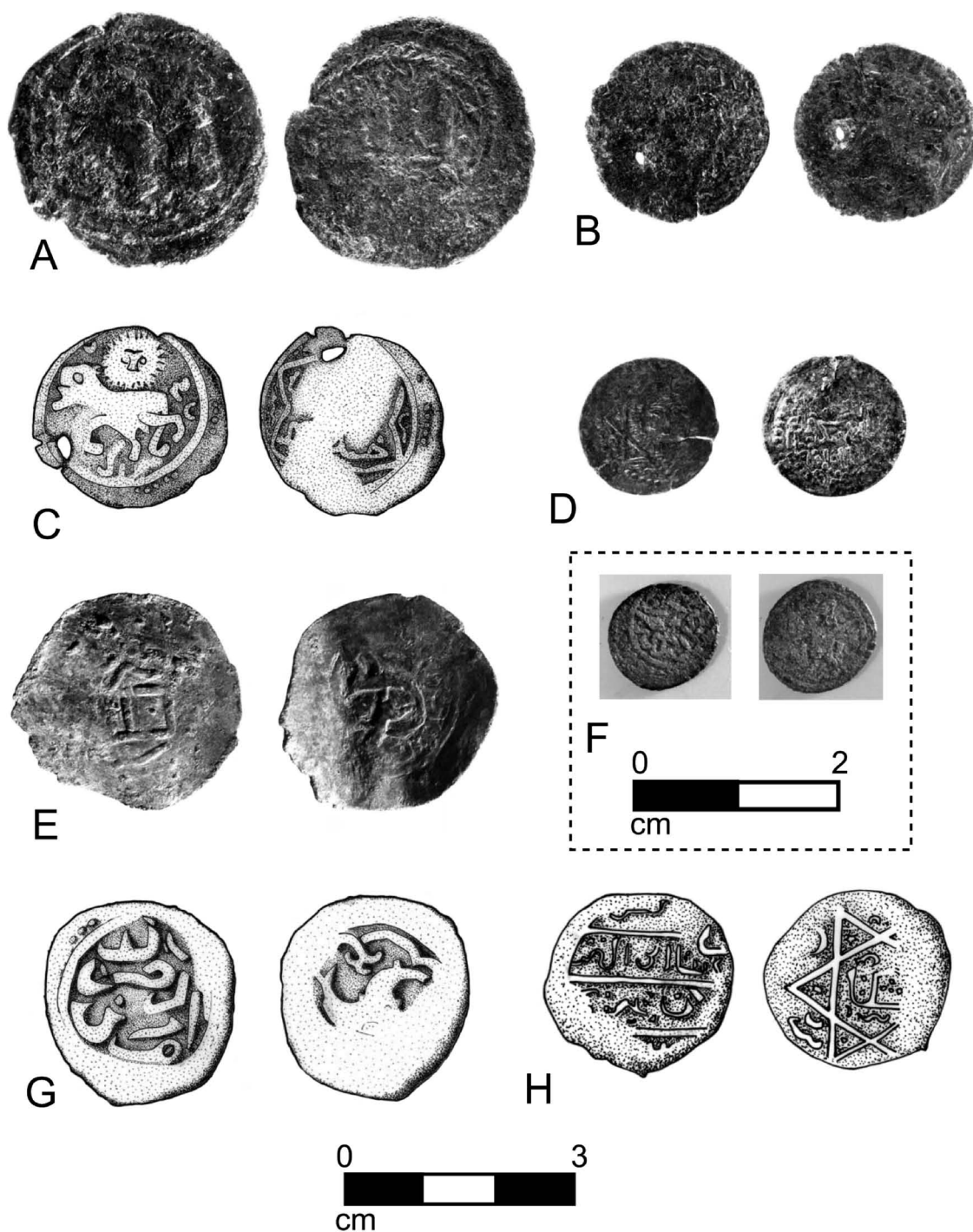


Fig. 11. Coins from Ziyaret Tepe. (A) ZT 0004; (B) ZT 0003; (C) ZT 20586, L-360; (D) ZT 0007; (E) ZT 5540, A-707; (F) ZT 0234; (G) ZT 1044, A-304; (H) ZT 11105.

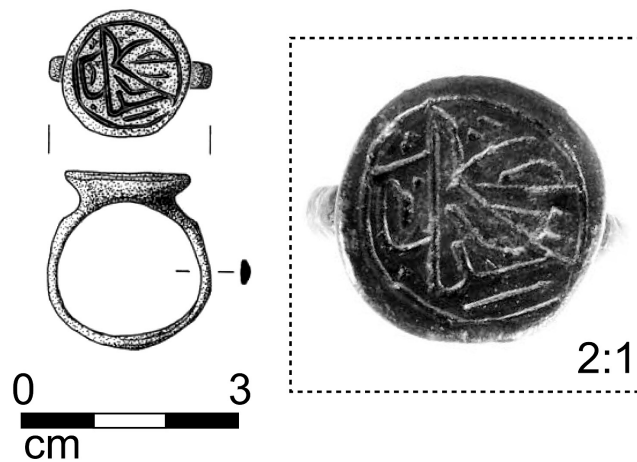


Fig. 12. Inscribed copper alloy ring of Medieval date (ZT 19037, L-205).

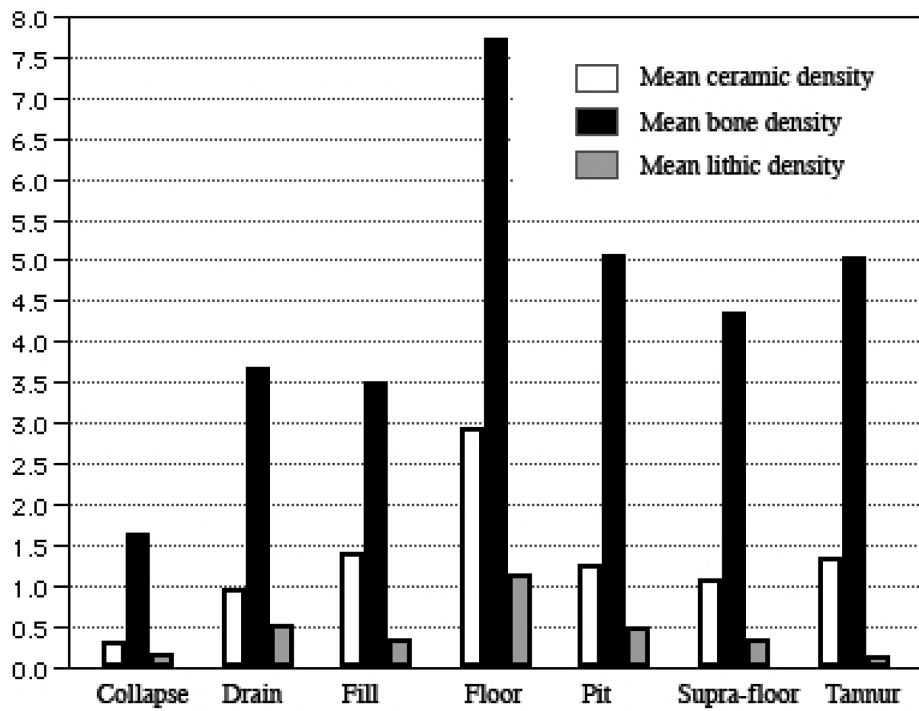


Fig. 13. Mean micro-artefact count densities per locus type in Operation L.

Micro-debris Sample#	ZT #	Bead material	Ht.	Diam.	Hole	Color	Shape
1676	21502	Unknown	2mm	3mm	1mm	Gray	Disc, flat
1678	21502b	Unknown	3mm	3mm	1mm	Black	Disc, flat
1693	21508	Gypsum	2mm	3mm	1mm	White	Disc, flat
1699	21511	Gypsum	2mm	4mm	2mm	White	Disc flat
1701	21512	Stone	3mm	5mm	1,5mm	Tan	Oval, oblong
1703	21515	Frit ?	2mm	3mm	1mm	Gray	Disc, curved
1704	21517	Carnelian	4mm	9mm	2mm	Orange	hexagon
1707	21519	Gypsum	1.5mm	3mm	1mm	White	disc
1715	N/A	Glass	3mm	2mm	1mm	Clear	cylinder
1723	21528	Glass	3mm	3mm	1mm	Green	Curved disc
1735	21535	Gypsum	4mm	5mm	1mm	White	sphere
1738	21539	Lapis lazuli	5mm	4mm	1mm	Blue	Barrel
1742	21541	Lapis lazuli	3mm	3mm	1mm	Blue	Short cylinder
1755	21545	Lapis lazuli	3mm	3mm	.5mm	Blue	Sphere
1773	21546	Glass	2mm	1.5mm	.5mm	Silver	cylinder
1773	21547	Bone	3mm	3mm	1mm	White	Cylinder
1774	21551	Ceramic (?)	6mm	5mm	1mm	Orange	Sphere
1775	21552	Gypsum	2mm	2,5mm	1mm	White	disc

Fig. 14. Beads collected from Operation L micro-debris samples.

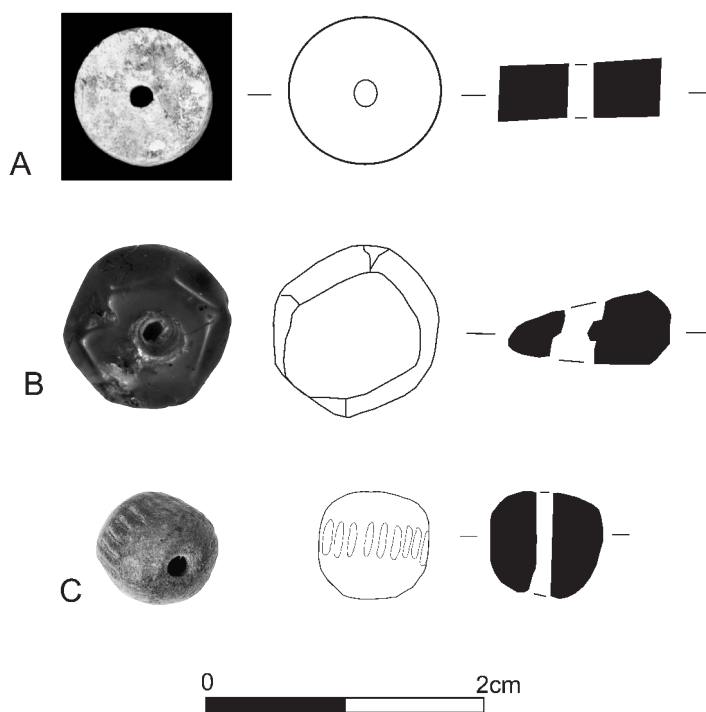


Fig. 15. Flat discs and hexagonal beads recovered in micro-debris samples from Operation L. (A) ZT 19639, L-267; (B) ZT 19534, L-255; (C) ZT 21551, L-372.



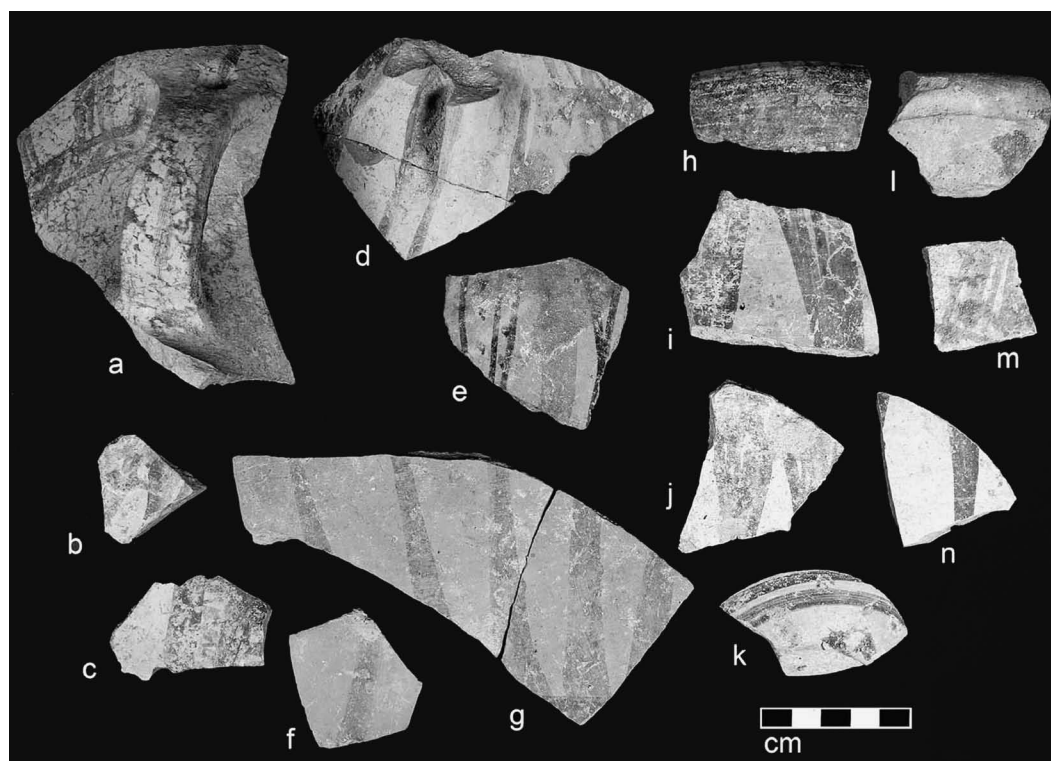


Fig. 16. Late Iron Age pottery from Operation L, level L3.

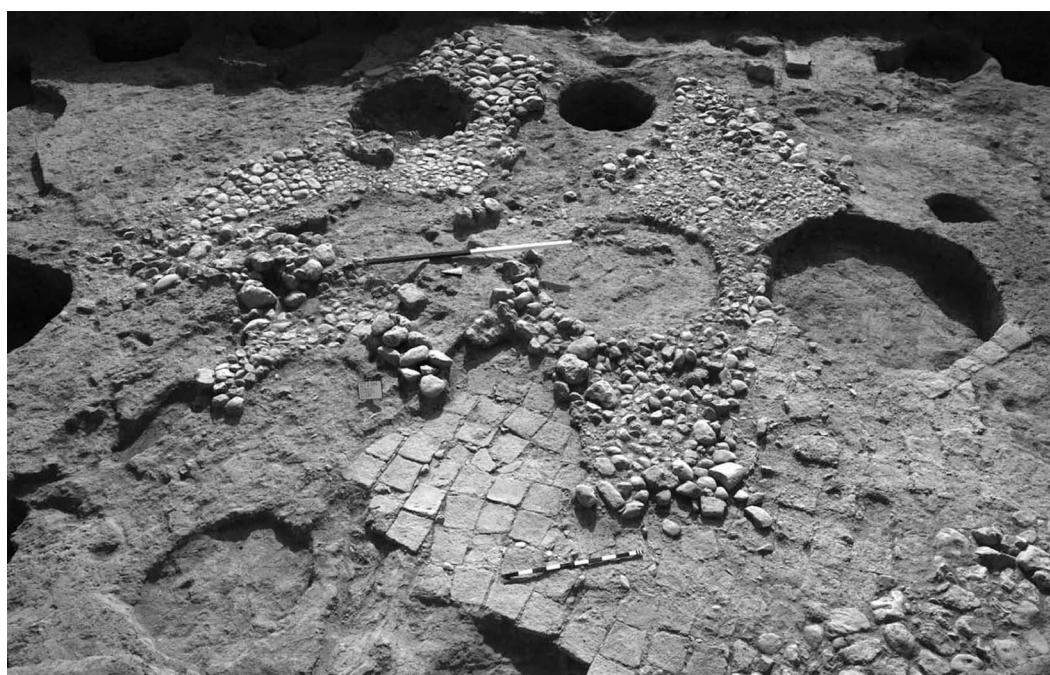


Fig. 17. Late Assyrian pavement (L-287) recovered in Operation L, Level L4. Note pits cutting the pavement from later strata.

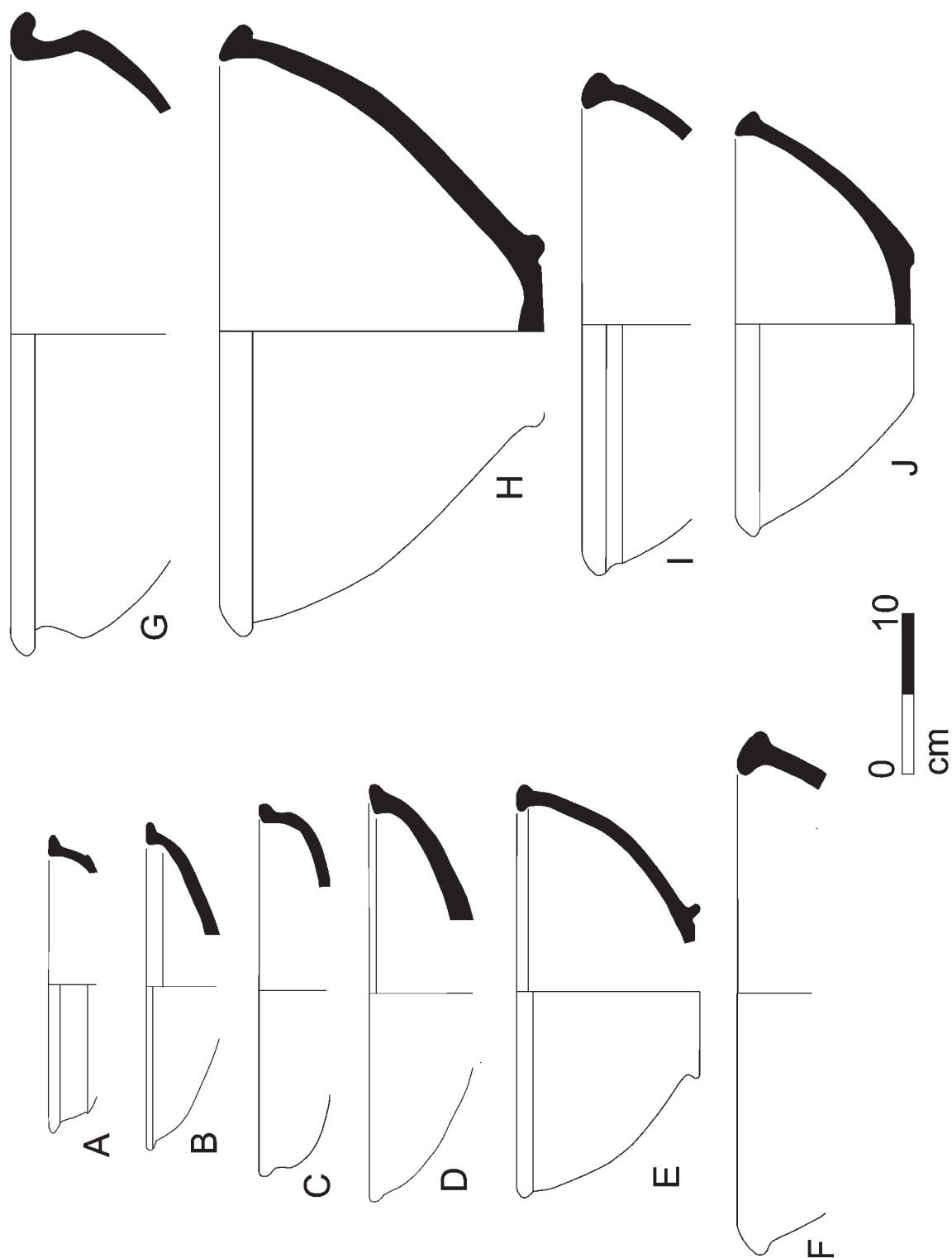


Fig. 18. Operation G pottery – showing typical Late Assyrian bowl forms

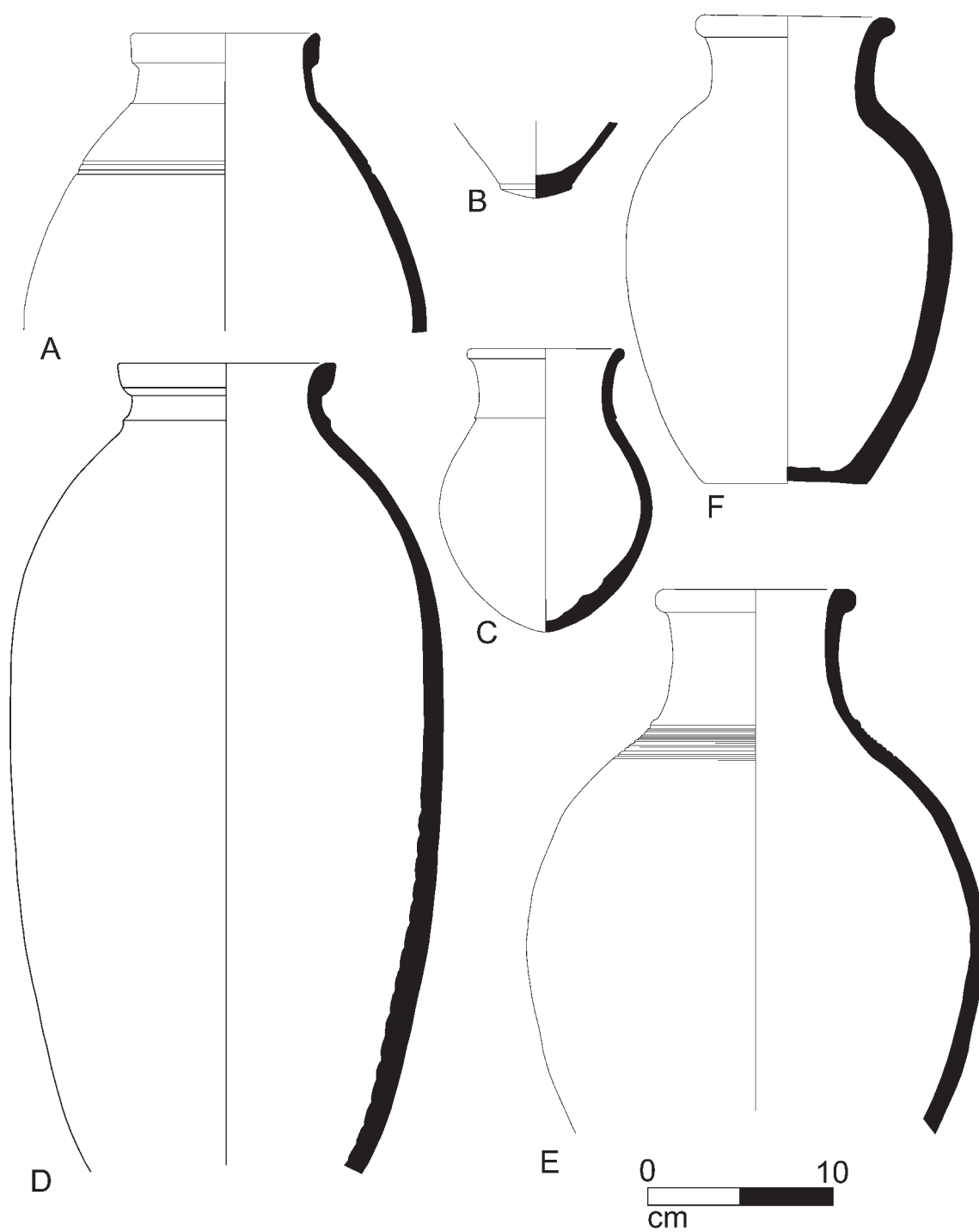


Fig. 19. Operation G pottery – showing typical Late Assyrian jar forms

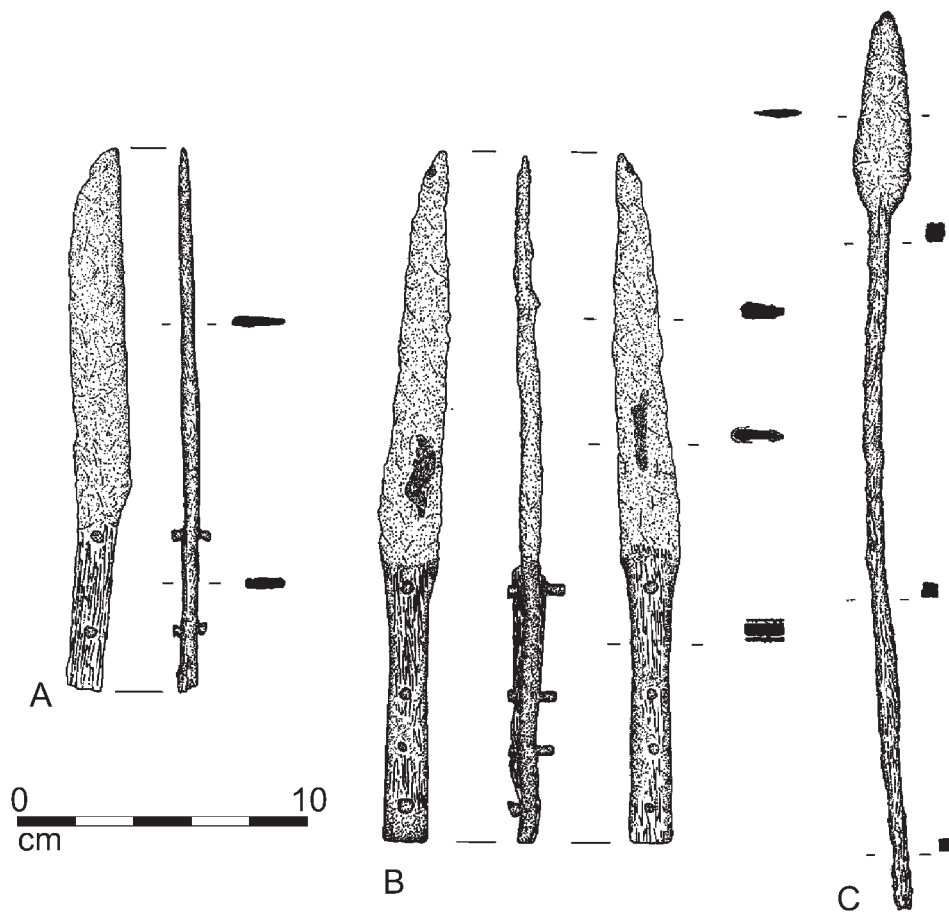


Fig. 20. Late Assyrian metalwork discovered in Operation L (A) ZT 19862, L-283; (B) ZT 19776, L-286; (C) ZT 19858, L-285.

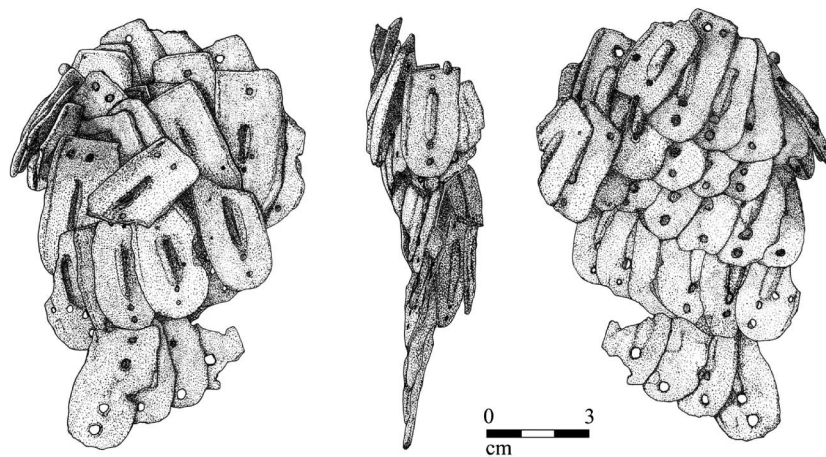


Fig. 21. Scale mail armour from Operation A, ZT 8087, A-923.

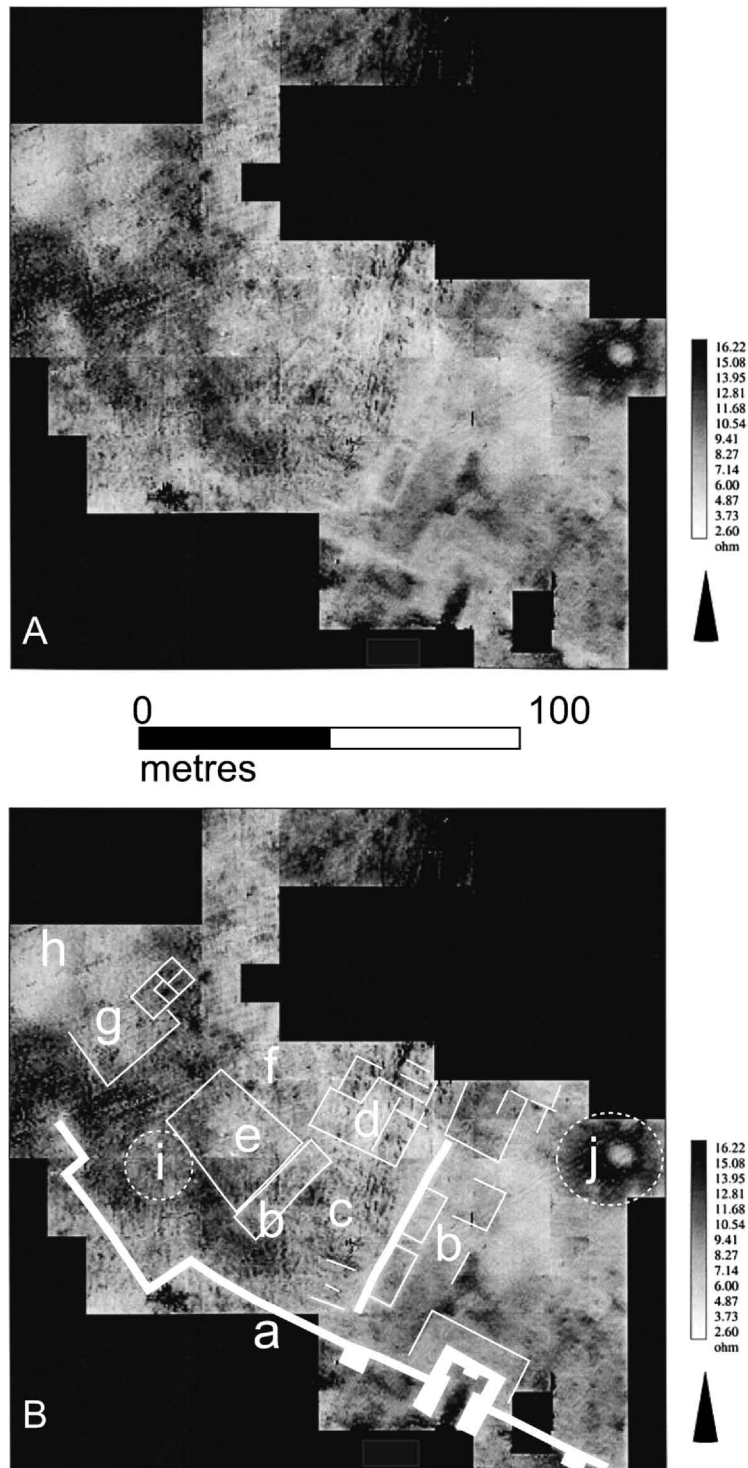


Fig. 22. Results of shallow subsurface geophysical survey in 2004-2006.

(A) Electrical resistance map from western lower town. (B)  
Interpretation of the geophysical map.



## **THE UPPER TIGRIS ARCHAEOLOGICAL RESEARCH PROJECT (UTARP): A Summary and Synthesis of the Late Chalcolithic and Early Bronze Age Remains from the First Three Seasons at Kenan Tepe<sup>1</sup>**

*Andrew Creekmore*

### INTRODUCTION<sup>2</sup>

This report is a detailed summary and synthesis of the Late Chalcolithic and Early Bronze Age architecture, stratigraphy and ceramics uncovered during the 2000–2002 seasons from Area F at Kenan Tepe, Turkey. The first part describes the stratigraphic relationship of the various layers and the features they contained. The second part is an initial attempt to organize the dominant ceramics from these layers into ware groups, describe their essential characteristics, including how they change over time, and how they relate to contemporary sites in the region and beyond. Next, the report discusses

<sup>1</sup> The author thanks the Turkish Ministry of Tourism and Culture for granting permission to conduct research at Kenan Tepe and the Diyarbakır Museum. In addition, the author thanks the Directors of the Diyarbakır Museum during the period of this research, Necdet İnal, Ahmet Çaltekin and Nevin Soyukaya, and their staff, and Prof. Dr. Numan Tuna, Jale Velibeyoğlu and the staff of TAÇDAM, for assistance in planning and executing the research. The author also thanks the Turkish government representatives, Hamdi Ekiz (2000), Latif Özer (2001), Musa Tombul (2002) and Melek Çanga (2003), for their assistance in the field. Dr. Bahadır Yıldırım, Cennet Kose and the staff of the American Research Institute in Turkey were also very helpful with the permit process.

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<sup>2</sup> In places, the interpretations in this report differ from those in previous preliminary reports. These differences arise from a comprehensive review of the available data and the combined view of three seasons. Written largely in 2003 and 2004, this report does not consider finds from the 2004 and 2005 seasons, except where they clarify or qualify the analysis of the earlier seasons. Preliminary reports from the 2000–2005 seasons at Kenan Tepe, including many photographs, drawings and plans, are published in the reports listed in the bibliography of this report and online at [www.utarp.org](http://www.utarp.org).



small finds and carbon dates as they relate to the stratigraphy and emerging ceramic chronology. The conclusion explores the kind of sociopolitical organization that may have existed at Kenan Tepe and in the wider region, based on the evidence of the stratigraphy and finds.

Kenan Tepe<sup>3</sup> is located in the Upper Tigris River Valley,<sup>4</sup> approximately 20m above the north bank of the Tigris River, 15 km east of Bismil, in southeastern Turkey (for a regional map, see Parker et al. 2006: Figure 1). The site consists of a 32m high, 2.08 hectare tell (Excavation areas A, B, C, D, E) and a 2.16 hectare lower settlement (Excavation areas F, G, H, I) (Parker et al. 2006:72; for the most recent topographic site map showing the location of all trenches, see Parker et al. 2006: Figure 2). The site was occupied during the Ubaid, Late Chalcolithic, Early Bronze Age, Middle Bronze Age and Early Iron Age periods.<sup>5</sup>

Based on its size and the finds to date, Kenan Tepe was a village throughout its history. Although it is tempting to view such sites as examples of the ‘timeless villages’ that dot the landscape throughout the Near East, in fact these sites are often the nodes in long distance trade networks, and the locus for social, political and economic developments that led to innovations including plant and animal domestication, craft specialization and metallurgy. Similarly, religious and cultural rituals based in villages no doubt contributed to or were the basis for what became the institutions of kingship, the temple and other complex aspects of urbanized states. Thus, villages are not timeless, unchanging entities but crucibles of cultural change, and any regional study is incomplete without their inclusion (Schwartz and Falconer 1994). This is particularly true in times of widespread, cross-regional socio-economic and political changes, such as those that occurred in the transition from the Late Chalcolithic to the Early Bronze Age periods across north Mesopotamia. This report focuses on these periods at Kenan Tepe, presenting the basic data, including architecture, artifacts and stratigraphy that are necessary to analyze larger socio-cultural questions.

## AREA F

Area F is defined morphologically as the 50m–70m square eastern portion of the lower settlement north of the tell. This area is bordered to the east by a 20–30m steep

<sup>3</sup> Excavations at Kenan Tepe began in 2000 under the direction of Dr. Bradley Parker, and continued through the latest field season in 2006 under the direction of Dr. Parker and Dr. Lynn Dodd.

<sup>4</sup> The upper Tigris river valley begins just south of the city of Diyarbakır where the Tigris makes a sharp 90° turn and flows gently eastward for about 65 kilometers to the Tigris-Batman confluence. Along this course the Tigris is fed by several perennial tributaries but maintains a low, slow flow and a shallower channel than beyond the Tigris-Batman confluence, where larger tributaries significantly increase the flow and cut a deeper channel. The southern border of the upper Tigris river valley is marked by the Tur Abdin range, which rises to nearly 1500 meters (5000 feet) and extends 15 to 30 kilometers south and 140 kilometers east to west. Today as in antiquity, the Tur Abdin forms a substantial barrier to travel and communication between the upper Tigris river valley and the limestone hills of northern Syria. North of the Tigris, low rolling hills continue for nearly 50 kilometers before reaching the foothills of the Taurus range.

<sup>5</sup> For carbon dates for these periods at Kenan Tepe, see Parker et al. 2005:90-92. Carbon dates for the Late Chalcolithic to Early Bronze age in Area F are discussed later in this report.

drop to the Tigris River, to the north and south by seasonal drainages, and to the west by a slight rise to Area G.<sup>6</sup> Section cuts and soundings show that Area F contains cultural deposits 2m–4.5m deep, over sterile clay with calcium carbonate inclusions and layers of conglomerate deposited by ancient floods and shifts in the bed of the Tigris River.<sup>7</sup> Excepting a cluster of Ubaid sherds at the base of trench F6, cultural deposits in this area date from the Late Chalcolithic to the first half of the Early Bronze Age (ca. 3700–2500 BCE). These deposits contain mudbrick structures and domestic features, including small ovens, cobblestone surfaces, and simple stone installations.

Research in Area F proceeded in three stages. In the year 2000 we began three 5m X 5m trenches (F1, F2, and F3, the latter designated F9 in year 2001) and two section cuts in the steep eastern hillside (F4: 3.25m X 3.47m; F5: 2.30m X 3.50m). In the 2001 field season we added two larger exposures (F7: 10m X 10m; F8: 10m X 5m) and four sounding and section cuts (F6: 2X4m; F10: 1X1m; F11 and F12: each 2m wide section cuts) to define the stratigraphy and morphology of the Area. Finally in 2002 we dug a series of long narrow test pits, each 1m X 9m, to locate quickly any architecture across the Area (F13, F14, F15, F16). Three of these test trenches (F13, F14, F15) were partially expanded. Excavations in Area F continued during the 2004–2005 seasons,<sup>8</sup> but that material is not discussed here except where especially pertinent.

#### STRATIGRAPHIC LEVELS IN AREA F<sup>9</sup>

##### **Chronological considerations**

For clarity of presentation I describe the Area F contexts in seven levels.<sup>10</sup> These levels correspond to multi-phase strata, such as a room and its various modifications until abandonment, or a series of cobblestone surfaces sealing earlier pits. In many cases we have not yet connected these layers horizontally or by carbon or ceramic dating, and the current order and make-up of levels is tentative. The levels are numbered beginning with

<sup>6</sup> The surface of Area F is flat with sparse ground cover, including grass and thorny brush. Some parts of this area contain plow furrows but the land has not been farmed for many years and, according to local residents, is officially designated as a grazing area for sheep, goats and cattle.

<sup>7</sup> The cultural deposits are deepest towards the Tigris, indicating that the site originally extended further east but was eroded by the river. The author thanks Professor Donald Sullivan for advice on the interpretation of Kenan Tepe geomorphology. For a summary of the sections and soundings, see Parker et al. 2003:120-121.

<sup>8</sup> For a report on the 2003 and 2004 seasons, see Parker et al. 2006.

<sup>9</sup> In a preliminary report on the 2004 season, these levels, while correctly described (based on a draft of the present report), were incorrectly labeled as “LC” or “Late Chalcolithic” (Parker et al. 2006:82) when in fact their actual date or period assignment is a matter for discussion. For example, level 1 postdates the Late Chalcolithic, and Levels 2 and 3, while technically dating to the Late Chalcolithic period if it is defined as the fourth millennium BCE, might also range into the third millennium BCE. Thus, based on absolute dates and stylistic traits, levels 2–3, and possibly 4, may be considered Early Bronze Age or transitional.

<sup>10</sup> An important section drawing showing all these levels as they appear in trench F1 is published in Parker et al 2006:117 (Figure 8).

the most recent materials. Accordingly, the first level contains thirteen burials cutting earlier contexts. Levels two through seven contain earthen and cobblestone surfaces, pits, and small walls.<sup>11</sup>

Assigning chronological periods to these levels is difficult. For this task we have three kinds of evidence: 1) carbon dates; 2) ceramic typology; 3) style or type of small find (e.g. cylinder seals, metal pins). The small finds are few in number and their contribution is considered near the end of this report. The carbon dates, discussed below, indicate that level four dates to 3360–3020 BCE, placing levels one through three and five through seven earlier or later than this date, although some overlap can be expected considering the wide date range of level four. The ceramics from levels two through four share a range of wares and forms that seem to separate them from levels five through seven, despite some overlap. Without ceramic seriation it is not possible to define the chronology more closely than we do here.

As recently discussed by Cooper (Cooper 2006:6-8), new carbon dates in various regions of upper Mesopotamia are pushing back the start of the Early Bronze Age period, which was previously defined in relation to political events in southern Mesopotamia. “Local” chronologies, defined in relation to specific regions, such as the upper Euphrates valley (Cooper 2006:8-26), or the Jazireh of northeastern Syria (Pfälzner 1998), attempt to define the passage of time in relation to local socio-political developments and their corresponding material culture. The chronology for the upper Tigris region in the Late Chalcolithic and Early Bronze Age (among other periods) is still in the developmental stages as we synthesize the results from the many projects initiated in the region during the last decade and await publication of additional site reports.

Due to the differences between local and macro-regional chronologies, and the new chronologies that place the start of the Early Bronze Age in the last two centuries of the fourth millennium, we are sometimes in the awkward position of finding parallels for Kenan Tepe material culture from a single stratigraphic layer in both “Late Chalcolithic” and “Early Bronze Age” contexts from other sites. For example, the carbon date for level four corresponds to what a recent chronology (Rothman 2001) calls “Late Chalcolithic 5,” but its ceramics are very similar to those in levels 1–3, which we call here “Early Bronze Age.” These ceramics have many parallels to Ninevite V and Early Bronze Age period vessels from other sites. The earlier levels, 5–7, have parallels in the Late Chalcolithic period. In the section headings below, levels are labeled as “Early Bronze Age,” “Transitional LC-EB”<sup>12</sup> or “Late Chalcolithic” on the basis of ceramic and artifact

<sup>11</sup> All of the trenches did not reach the same depth during the excavation seasons covered in this report. Thus, after levels one and two, some trenches appear ‘blank’ in the plan figures (Figures 2 and 3) because we did not reach the level under discussion (e.g. levels five, six, and seven were only reached in trenches F1 and F4).

<sup>12</sup> With so few carbon dates and in the absence of a clear settlement hiatus at the end of the Late Chalcolithic it is difficult to define its end and the beginning of the Early Bronze Age.

parallels.<sup>13</sup> Due to the subjectivity of these period labels, the reader may wish to pay closer attention to the suggested absolute dates.<sup>14</sup>

*Level 1 (Unknown Date. May Range from Early Bronze Age to Islamic: 2900 B.C.E.–1200 C.E.).* See Figure 1.<sup>15</sup>

Level one consists of thirteen burials cutting other features in trenches F1, F6, F7, F14 and G6.<sup>16</sup> These burials are difficult to date for these reasons: they all occur within 1.5m of the ground surface; only one or two burials contained grave goods<sup>17</sup> (L1011/21-A and– B: see Figure 13); and none of them were sealed beneath other loci, except F1 L1021-A, which was sealed by another burial, and F7 L7028,<sup>18</sup> which partly overlapped burial F7 L7084. In light of these factors, the burials may date from the Early Bronze Age to the Byzantine Period or even later. In contrast to the ceramic-dated Early Bronze Age burials in stone-lined and covered pits at nearby lower Salat Tepe (Şenyurt 2002: 686, Figure 13; 694-695), all of the burials in Area F are simple pit inhumations.

The burials of level one exhibit a variety of orientations, positions, and states of preservation (Table 1<sup>19</sup>). Seven of the ten adults and two of the three children or infants were poorly preserved or fragmentary. Of those burials preserved well enough to determine their position, five or possibly six were flexed while two or three were extended. All of the extended burials come from trench F1, and all three were oriented with their head west and feet east. Excepting L1004 in F1, which might be flexed, all of the flexed burials were found in trenches F7, F14, and G6. The flexed burials were

<sup>13</sup> Throughout this report, “Late Chalcolithic” is abbreviated “LC,” and “Early Bronze Age” is abbreviated “EB.”

<sup>14</sup> Ultimately what is needed is a local chronology, based on local events, which can be correlated to neighboring regions via carbon dates and key material culture diagnostics. The material presented here is part of an initial attempt to establish a local chronology, but since it relies on few carbon dates, limited exposures and unquantified artifact patterns from a single site, it remains preliminary and will no doubt be modified in the future.

<sup>15</sup> All figures were created for this report by the author, based on field drawings and photographs by the trench supervisors. Pottery drawings and inkings were done by Güner Sümer and Barış Üzel. In Figures 1-3, for purposes of visibility, loci are depicted schematically in their proper location but not to exact scale (e.g. the cobblestone features, ovens, and burials).

<sup>16</sup> Trenches F6 and G6 are not considered in the stratigraphic levels presented in this report, but burials from these trenches are included in Table 1 and in the discussion of level-one burials. For the location of trenches F6 and G6, see Parker et al. 2006: Figure 2.

<sup>17</sup> During a southward expansion of trench F1 in 2005 (dug as trench F22), we discovered a burial (F22, L13) associated with a bronze pin in Level 1. This burial disturbed another which, based on the absence of some skeletal elements, may have been a secondary interment.

<sup>18</sup> Our project uses loci as the basic excavation units, and ‘KT numbers’ are assigned to each group of items (pottery, bone, etc.) from a locus, while item numbers are given to specific potsherds or examples pulled from a group. In this paper, “L1020” stands for “Locus 1020,” while KT numbers are written “KT1120” and items are added as decimals: “L1020 KT1120.2”. In figures this is further shortened to: “F1.1020.1120.2”.

<sup>19</sup> The following burials were identified, sexed and aged by Andy Creekmore: Trench F1 Locus 1004, 1008-A/B, and 1017/22. The following burials were initially identified, sexed and aged by Andy Creekmore and subsequently verified by Dr. Richard Paine: Trench F1 1011/21A/B; Trench F5 Locus 5000/5005; Trench F7 Locus 7006; Trench G6 Locus 8. The following burials were identified, sexed and aged by Dr. Richard Paine: Trench F6 Locus 6004, 6011; Trench F7 Locus 7028/54 and 7084, Trench F14 Locus 7.

variously oriented on the right or left side with the head west (3 examples), east (1 example), and north (1-2 examples).

The variety of orientations and the mix of flexed and extended burials may indicate that orientation and position were not important to the community, or that these burials were simply the first stage in a more complex burial ritual involving primary and secondary interments,<sup>20</sup> or that the burials belong to different ethnic or religious groups, or that they date to different time periods. It is tempting to view Area G, where three burials<sup>21</sup> were also found in the first level, and Area F as the burial ground for later period settlements on the tell or nearby sites. The density of burials is probably too low to indicate intensive use of this area as a burial ground over a long period of time, but occasional use across many different periods may explain the pattern of burials. The ratio of children to adults, 3:10, is not the demographic profile we would expect (too few children), suggesting that children and infants were buried elsewhere, perhaps beneath house floors or in a different part of Areas F or G, or that their smaller, thinner bone structure reduced their rate of preservation.

Status or wealth differences are not evident in the burials. All of the burials were primary interments in simple, unlined and unmarked pits, apparently with no special treatment. The only burials that contained grave goods were L1011/21-A and -B in F1 (Figure 13). These burials were found one on top of the other in an identical extended position but in a poor state of preservation with their lower bodies significantly disturbed. Although their upper bodies were lying on their backs, their legs may have been flexed and resting towards one side or with the knees straight up. Thus while the upper body indicates an extended burial the legs suggest a flexed position. The lower burial, L1021-B, had a bag-shaped, flared rim juglet (KT 1118) cradled in its arms, which were folded across its waist. The ware of this juglet is like that of the Early Bronze Age fine chaff and grit vessels that include pedestaled and ring base bowls (a drawing of this vessel can be found in Parker et al. 2003:172, Figure 15:M). Its size and shape are similar to pots found in tomb one at Tell Banat (Porter 1995: Figures 17 and 18, top row). In addition, a miniature vessel (L1021 KT1087) and a spindle whorl (L1011 KT1056) were found near the feet of L1021-A (a drawing of the vessel can be found in Parker et al. 2003:172, Figure 15:L). Since the lower limbs were disturbed, and the two objects were found some distance away, it is difficult to say definitively if the spindle whorl and miniature vessel were grave goods. It is also difficult to determine whether or not these burials were in the same pit or were separate burials because not only were their legs disturbed in antiquity but the first was partially excavated in year 2000 and disturbed in the off-season such that when we continued work in year 2001 we initially did not realize that the second burial

<sup>20</sup> See for example the rituals described in Porter 2002:21-22.

<sup>21</sup> Only one of the Area G burials is discussed here (G6, L8). The other two G6 burials are a jar burial of an infant in G4/6, which may date to the Late Chalcolithic or Early Bronze Age, and a burial from trench G8, which we did not fully expose or excavate (Parker et al. 2006:104).

was not part of the first. Considering their nearly identical orientation and close stratigraphic position, it is possible that they were in the same pit, one on top of the other.

*Unassigned burial – perhaps belonging between levels three to seven (Early Bronze Age: early third millennium)*

Located at a depth of over 5.5m below the ground surface, burial L5005 (formerly L5000) in trench F5 probably belongs between levels three to seven. I discuss this burial with the level one burials because it was found at the base of a section cut on the steep eastern slopes of Area F, and the earth immediately above was eroded to the point that no pit or sealing layer could be determined. We found the burial at the base of the cultural debris on the eastern side of F5, at the edge of the hillside, cut into sterile clay. A rib sample produced a two-sigma calibrated carbon date of 2920–2870 BCE and 2800–2770 BCE. This burial was flexed, lying on its right side, with its head to the southeast, feet to the northwest, facing northeast. A small bead or spindle whorl (KT5029) was found near the face and hands (for a photo of the burial see Parker et al. 2002:628, Figure 7 [there labeled incorrectly as Trench C2, but it is a view of L5000/5005]). This burial is most likely a male, aged 20–35 years. The individual seemed to be lying on a mat, perhaps made of grass. A mat is inferred from the square shape of the area beneath the body, the apparent grain impression observed in the soil and the appearance of this material where it clung to the bones.

*Level 2 (Early Bronze Age: early part of third millennium).* See Figure 1.

Level two consists of cobblestone surfaces, beaten earth surfaces, three ovens, three stone installations, a stone wall foundation and fragments of other poorly preserved stone structures or installations uncovered within the first meter below the ground surface. These loci are indicative of mostly outdoor domestic activity spaces spanning a 35m X 35m area. In contiguous trenches F2, F3/9, F7, F8, F13 and F14, loci assigned to this level can be connected stratigraphically, but the inclusion of loci from F1, F15 and F16 within this level is tentative.

A cobblestone surface initially found in F2 (L2003) continued west into F7. In F2 this surface had a clear earlier phase or foundation of smaller cobbles (L2008) beneath the later, larger cobbles, but in F7 this surface was a more complex mix of multiple layers of pottery debris and cobble layers of varying thickness (Loci 7005+). A nearly identical cobblestone surface (L1006), also with an earlier phase or foundation of smaller cobbles and pebbles (L1009), was found in F1 and continued southeast into F4. The surfaces in F2 and F8 were covered by debris such as pottery and bones, while the surfaces in F1 were very clean. Finally, another two-phase cobblestone surface was found in F15 (L6 over L12+). The F15 surfaces were notably more compacted than those in F1, F2 and F4, suggesting that the F15 area was more heavily trampled, perhaps used as a designated street or passageway rather than a courtyard. Two pits, Locus 4 and Locus 5, cut this surface.

The cobblestone surfaces in level two were associated with three ovens, one in F2 (L2002) one in F8 (L8002), and one eroding from the hillside south of F4 (no locus). All



three ovens were similar in diameter (0.50m–0.75m) and composition (0.02m–.03m thin clay walls). Near the oven in F8 we found three stone installations consisting of rings of cobblestones with a cobblestone base (L8005, L8006), or rings of odd-sized rocks and broken potsherds with no base (L8009). I interpret these as pot stands; no burning or artifacts were associated with these installations.

We found a level-two wall foundation in F14 (L19). This wall was 3.25m long by 0.50m wide, and consisted of two to three rows of 0.12m–0.30m cobblestones, one to two courses high. This locus did not connect to any other walls but was associated with two earthen surfaces (L20, L21), one on either side, covered with scattered broken pots and debris including several andirons.

Another feature possibly belonging to level two is L3 in F16. This 3.5m long feature consisted of cobblestones, fieldstones and thick potsherds arranged in a single row, one to two courses high. The wall curved to the northwest and was too thin and precarious to stand alone, suggesting that it was the border for an earthen platform or other feature yet to be defined.

Other partially preserved surfaces, marked by isolated areas of cobblestones, pebbles or flat-lying debris, can be assigned to level two. In F7 these include L7029 at the north baulk. This surface fragment is contemporary with the more substantial surface running from the eastern half of F7 into F2 (F7: L7005+; F2:L2003+). In F8, level two surface fragments include L8010, adjacent to oven L8002. In addition, a few concentrations of stones and debris represent poorly preserved or disturbed architectural fragments, including in F13 L6 (small cobblestone surface fragment) and L7 (beaten earth surface fragment below L6), and in F14 L3 (2.0m X 1.0m pile of stones, pottery, bones in western part of trench just below topsoil). These fragmentary surfaces and wall fragments are consistent with outdoor domestic activities.

*Level 3 (Early Bronze Age: early part of third millennium).* See Figure 2.

Beginning with level three it becomes more difficult to tie the stratigraphy of non-contiguous trench F1 to the group of connected spaces of F2, F7, F8, F3/9, F14 and F15. In this layer, F1 had mixed mudbrick and debris, including a burned portion of a collapsed wall (L1015) and an installation consisting of a partially preserved ring of cobblestones (no locus) over the level four collapse layers discussed below.

The main feature of level three is a mudbrick structure and associated pits and surfaces in F7. The structure, L7033/53, ran NW–SE for 4m, cornering seamlessly at both ends with W–E walls that continue east for 1.50m–2m. The walls were uniformly 0.40m wide, constructed of a single course and single row of mudbricks. This structure was apparently open on its eastern end, although a doorpost pivot stone was found near the eastern end of the southern wall (L7077 KT22). It is possible that the structure's eastern wall was not preserved due to disturbances from burials in level one (L7028, L7084), a pit (L7043), and the level-two cobblestone surfaces. Due to their close stratigraphic relationship, it is also possible that structure L7033 remained in use after the level-two cobblestone surfaces were laid (L7005, L7029), although its shallow preservation makes this difficult to assess.

Considering its lack of a stone foundation and its thin walls, the F7 mudbrick structure may have been a windbreak for an oven or a shelter for storage or animals. Pieces of clay oven material or baked brick were found inside the structure against the western wall, but there were no ash deposits or evidence of burning, nor was there conclusive evidence of animal dung. Flat-lying broken pots, animal bones and other debris marked two beaten earth surfaces inside (L7075) and outside (L7074) the structure. Two round pits, both 1m in diameter, cut the accumulated debris on the floor. These pits were L7042, located partially beneath cobblestone surface L7029 in the north-central portion of the trench, and L7043, located beneath L7038<sup>22</sup> in the east-central portion of the trench.

In F8 another group of level three loci, comprised of two pits, were found beneath the level-two stone installations and an oven (L8002). One pit (L8023) was located partly beneath the oven and was 1m in diameter, while the adjacent pit (L8022), was 0.60m in diameter. Both pits were less than 0.30m deep and contained a mixture of soil, ash and animal bones. In F13, level three loci include a brick wall stub (L18), a group of collapsed, burned bricks (L20), a partially preserved stone installation (L13) and a pit (L14). These features were associated with ash layers that extended east into trench F9.

As in level two, the predominant features in level three correspond to (probably outdoor) domestic activities, with the added dimension of an insubstantial mudbrick structure, potentially for storage.

*Level 4 (Transitional LC-EB: Late fourth to early third millennium).* See Figure 2.

In a previous publication (Parker et al. 2003) level four was identified exclusively as a pavement in F1. After completing the excavation of this context it is clear that this feature is not a pavement but a collapsed wall. The wall goes with the surface on which it rests, shifting the floor up from level five to level four, thus affecting the lower level assignments as well. The new level four features identified in 2002 are a pit and an adjacent cobblestone surface fragment found in F7. Level four in F7 may not be contemporary with level 4 in F1 but we at this time we cannot connect these layers to definitively determine their relationship.

The level-four pit in F7 is 1.50–2.0m in diameter, with straight sides, and about 1m deep. This pit (L7094) contained ash, soil, and several broken pots including a ring-base bowl, a pedestaled bowl, a cooking jar, and three unusually large pedestal bases (See Figure 8). A carbon sample from this context yielded a two sigma calibrated date of 3360–3020 BCE. We uncovered a cobblestone surface fragment (L7079) just west of the pit.

In F1, beneath the level one burials and level two cobblestone surfaces, we encountered layers of fill and debris (level three) that overlay a layer of collapsed mudbrick walls. One large wall and parts of smaller walls fell onto an earthen surface

<sup>22</sup> L7038 is a fill layer beneath cobblestone surface L7024, which is part of the complex mix of cobblestone surface layers marked in Figure 1 as L7005.

(L1055) with an inset oven (L1045).<sup>23</sup> The main portion of the level-four collapse, originally interpreted as a pavement (L1033), consisted of bricks measuring 0.20m–0.40m by 0.10m set in a single row dozens of courses high. The surface of this wall was lightly baked, suggesting that the structure burned before it collapsed. The collapse covered nearly the entire northeastern two-thirds of the trench in a 3.5 by 3m area. These bricks abutted another piece of collapsed brick architecture (L1035), 1.25m by 1.25m square, consisting of a single course of bricks lying on its side just south of the center of the trench. The mud plaster on both the interior and exterior surface of wall L1035 was baked into a 0.02-meter thick black, pie-crust-like layer, prompting an initial interpretation of this feature as the remnants of an oven, although we now believe that it too was part of a collapsed wall. The western quarter of the trench at this level consisted of baked clay layers covering the area where the brick collapse described above failed to continue.

The collapsed wall pieces rested on a hard-packed, somewhat baked, mud-plastered earthen surface (L1055/1060) cut by a small pit (L1046), and covered with a thin, 0.10m layer of black ash (L1047+) perhaps originating from the oven in the center of the trench, or from a structural fire prior to collapse. The round, 1.60m diameter oven (L1045) was set into the floor. Only one 0.10m tall course of its bricks was preserved. A rectangular clay stand (KT1246) was set inside the oven just off center to the east. This stand was essentially a large mud brick with carefully smoothed sides, 0.64m long X 0.30m wide and 0.10m high. The clay floor in the center of the oven had turned bright orange from heating.<sup>24</sup>

Level four contains the first evidence for substantial architecture in Area F. This indicates a contrast between the function of the remains from level four and later levels, as well as between the eastern and western parts of Area F, as found in the features of F1 and F7.

*Level 5 (Transitional LC- EB: Late fourth millennium.* See Figure 3.

Level five is a domestic context excavated in the year 2002 in trench F1, marked by at least two phases of earthen surfaces, cobblestone surfaces, and thin mudbrick walls. In phase B, the earliest level-five surface (L1098) had a flared-rim cooking pot (L1103 KT5) buried within or beneath the surface, just south of the center of the trench, with its mouth flush with the surface. Two pieces of cobblestone surfaces were associated with surface L1098, including L1100 in the northeastern corner of the trench, and L1101 along the southern baulk. Two thin walls demarcated the area of the surface, a N-S wall (L1096), 1.75m long X 40cm wide, extending from the north baulk, and an E-W wall (L1069), 0.94m long X 0.36m wide, extending from the eastern baulk. These two walls separated a cobble surface (L1100) from the earthen surface (L1098).

<sup>23</sup> When the trench was expanded in 2005, we uncovered the remains of the walls that collapsed into the room. This architecture will be discussed in a forthcoming report.

<sup>24</sup> We found nothing to indicate the function of the oven, aside from a few bits of lightweight, greenish yellow slag that may be unrelated to the oven. This slag appeared in the ash layer in the northwest corner of the trench.

Later, in phase A, walls L1096 and L1069 continued in use and a third wall, 2.70m long X 0.50m wide, running W-E from the western baulk (L1080), was added to further demarcate the earthen surface (L1089) laid above surface L1098. This second surface sealed the pot buried in the previous surface (L1098). A shallow pit (L1090) cut L1089. This pit may be the remaining base of an oven because it was filled with ash, and the clay immediately around it showed evidence of heating. New layers of cobblestones were also added above surfaces L1100 (L1086) and L1101 (L1057/1097), and another thin wall (L1076), 1.06m long X 0.20m wide, was added running S-N from the south baulk to articulate with E-W wall L1069. These two new walls further demarcated what may have been indoor space in surface L1089, and outdoor space beyond the walls, a space traversed by intersecting cobblestone surfaces L1086 and L1057/97.

*Levels 6-7<sup>25</sup> (Late Chalcolithic: Mid to late fourth millennium).* See Figure 3.

Level six consists of general debris, and the ash and mudbrick debris found in pits and a large brick oven in trench F4. The oven itself, built upon sterile clay, is level seven. The relationship between many of the loci in F4 is visible in the trench's western section (for a drawing of this section see Parker et al. 2003:168-9, Figure 13). Trench F4 is located on the very steep, eroded eastern slope of Area F. The equivalent of levels one through five were removed as eroded slope deposits before we reached a clean context in which to begin stratified excavation. The first locus encountered was a layer of baked earth and bricks (L4000 / L4001), which contained a whole spouted pot (KT4027) (Parker et al. 2003: Figure 17x). This layer, which may be equivalent to level five in trench F1, sealed a large brick oven (L4009, L4027) approximately 2.0m in diameter, intersecting the northwestern baulk 2.60m below the present ground surface. The material inside this oven (L4007, L4023+) consisted of 1.3m of garbage, including ash, animal bones, stone tools, pierced pot discs (spindle whorls), and clay-like fill. The base of the oven was filled with a 0.40m thick layer of clay loam. The walls of the oven were made from at least twelve courses of 0.15m X 0.07m mud bricks. These walls curved slightly inward, suggesting that the structure had a domed shape.

As with the secondary garbage inside the oven, the material found outside of it in two pits yielded few clues as to its function. Both pits were dug against the wall of the oven, beginning at the preserved height of the oven wall. Pit L4024/L4033 was dug against the south side of the oven. This pit contained ash and other debris similar to the fill inside the oven. Pit L4028 was dug east of the oven. It contained two additional nested pits, L4034 and L4043. These pits contained layers of clay and ash. Notably, L4034 contained a potsherd with diagonal reserved slip (Figure 9Q).

The level-six and seven loci are indicative of production activities (e.g. the large oven), and garbage disposal in pits and an abandoned oven. Additional work is necessary

<sup>25</sup> Work continued in Area F during the 2004 and 2005 seasons. For the results from 2004 and a discussion of how they relate to the data presented here, see the section by Catherine Painter in Parker et al. 2006:80-84.

to provide a larger context for these loci. Excavations in 2005 in trenches adjacent to F1 and F4 pushed towards, but did not reach, level six and seven loci.

#### THE CERAMICS FROM LEVELS 2-7: A SUMMARY<sup>26</sup>

This ceramic summary is not exhaustive or quantitative; it focuses on the apparently dominant wares and types, and chronologically significant examples. I break the discussion into levels and associate each with a time period. I introduce material from test trench F6 because it contains the best examples of some Late Chalcolithic types.

#### **Levels 2-4: Early Bronze Age**

The Early Bronze Age ceramics that dominate levels two through four in Area F are characterized by three generalized ware groups, simplified here as follows. Each ware group will be discussed in greater detail below.

I) A temper-free, pale-yellow, very thin, well fired, wheelmade fine ware that comes in a host of shapes related to the Ninevite V group.

II) A fine chaff- and/or grit-tempered (often very little or no visible temper), micaceous and calcareous, red to reddish yellow and light brown, relatively thin, well fired, wheelmade ware. This ware is often wet smoothed and extensively burnished vertically on both the interior and exterior. The most frequent forms in this ware include pedestaled bowls, and ring- and flat-base bowls with simple straight or incurving rims.

III) A varyingly coarse grit- and chaff-tempered, reddish-brown/yellow/brown, relatively thick, low to medium fired, handmade and wheelmade ware. This ware is often burnished on the exterior and inside the rim, and frequently has fingernail or fingertip impressions on jars from the shoulder to the base. The most common forms in this ware are jars, bowls and cooking pots with simple open or flaring rims and bag-shaped or flat bases.

Other than these three predominant wares, there are cooking pots made from a very coarse, grit-tempered ware with large, densely packed grits. These pots are thinner than the mixed-temper pots, and occur less frequently. There are also a few examples of diagonal reserved slip,<sup>27</sup> some vessels with possible Trans-Caucasian connections, and a relatively fine gray or orange ware with distinctive fingernail impressed patterns.

<sup>26</sup> The summary presented here is based mostly on work conducted during June 2003 at the Diyarbakır Museum, and the subsequent study season at Kenan Tepe. Although this summary is the work of the author, it benefited greatly from discussions with Dr. Bradley Parker and Dr. Lynn Dodd. Ceramic analysis at Kenan Tepe continues, and it is likely that new material from Area F and other parts of the site will modify or perhaps significantly change the ware groups presented here. For a preliminary review of the Late Chalcolithic ceramics from the 2004 season excavations in Area F and on the tell in Area D, see the section by Catherine Painter in Parker et al. 2006:80-84.

<sup>27</sup> The reserved slip material is discussed in the next section, since most examples were found in earlier contexts.

### *Ware Group I*

The first ware group is a wheelmade fine ware, 0.30–0.40cm thick (measured below the rim), distinguished by its pale yellow surface (Munsell 5Y 8/2 or 2.5Y 8/2) and fabric (5Y 7/3), which is often green (no matching Munsell value). These vessels usually have no core or occasionally a very light pink core, and have no temper aside from occasional fine grits that must derive from the clay itself. This ware comes in a variety of forms that have a carinated or hemispherical bowl as their core element, crowned by a simple straight rim or in rare instances a ledged rim (Figure 4:B, C, D, I, J, L, M, O; Figure 8:I). Bases in this ware are ringed, conical/flat or occasionally pedestaled (Figure 4:E, K, N; Figure 8:J). A spout is sometimes added to closed forms, and pierced lug handles are also found (Figure 4:F). The shoulders of these vessels often have two or three subtle ridges formed by shallow grooves (Figure 4:I, J, L, M). These grooves range from thin lines that probably were formed incidentally during throwing, to wider, intentional grooves that create distinct ridges. These vessels are wet smoothed, and may be self-slipped. The bowls have an 8–10cm rim diameter. Complete examples of the full range of shapes in this ware group were found in the Early Bronze Age tombs at lower Salat Tepe, not far down the river, east of Kenan Tepe (Şenyurt 2002: 683 – Figure 6, 687 – Figure 14). During the 2004 season we found a ring base in this ware with a probable potter's mark, an 'X,' incised on the base (Trench F18, locus 1, KT4).

Parallels for this ware and its forms are known from other sites in the Upper Tigris Valley, including Lower Salat Tepe (Şenyurt 2002), Salat Tepe (Ökse et al. 2001:Figure 7:10) and Ziyaret Tepe (Helen McDonald, personal communication). These forms also recall pots from very early third- millennium contexts at Tell Brak, which contained carinated bowls with shoulder grooves, lug handles, and ring bases (Matthews 2003:141, Figure 5.57:1, 17).

### *Ware Group II*

The second ware group is a generally wheelmade micaceous and calcareous medium ware, 0.40–1.0cm thick (measured below the rim), marked by fine chaff and / or grit temper. This ware often has no visible temper, but sometimes the opposite is true, namely lots of fine chaff or grit. Most often this ware has no core, although sometimes a subtle core is evident, and dark cores may occur at thickened areas such as where a pedestal attaches. Surface colors in this ware range from yellows and reddish yellows to pale browns (Munsell 5 YR 6/6 reddish yellow, 2.5YR 6/6-6/8 light red, 7.5YR 7/6 reddish yellow, 10YR 6/3 pale brown, 7.5YR 5/3 brown, 7.5YR 6/4 light brown). Some vessels have a mottled surface color in which firing effects give the appearance of a red slip that is not really there. The more micaceous examples seem to have less chaff and a browner surface color. Vertical burnishing is common on all forms in this ware. The burnishing generally covers most of the vessel, but no attempt is made to polish away the vertical burnish marks. Forms include short pedestaled bowls, commonly called "fruitstands" (Figure 5:B,G,H,I,J; Figure 8:O), pedestaled jars (Figure 5:E), ring and flat-based open or hemispherical bowls with incurving, straight or slightly everted rims (Figure 6:A-E, H-M; Figure 8:B, C, F,G, M, N,), and jars with flared and everted rims.



One distinctive bowl in ware group two has an often subtle (flattened by burnishing) but sometimes pronounced ridge bordered by two grooves below a simple, straight rim, and above the carination (Figure 5:I; Figure 6:K, M; Figure 8:M). Although it is a stretch, perhaps some examples of this type, those with a more pronounced band (e.g. Figure 6:K, M) are related to the band-rim bowls found in the Euphrates Valley (e.g. Frangipane and Bucak 2001:94, Figure 11:7). This bowl comes in a relatively fine, thin version (Figure 5:I; 8:M) and examples that are thick and contain much more chaff (Figure 6:M). One example (Figure 5:I) is attached to a pedestal, with an overall form that recalls Ninevite V pedestaled vessels (Matthews 2003:Figure 5.57:28; Oates 1986:261, Figure 4:59 [Early Dynastic]; Rova 1988:221, B9; Schwartz 1988: Figure 36:1-2; Wilkinson and Tucker 1995:209, Figure 68:19-21 [parallel for 'collar' at join between bowl and pedestal base]).

A number of simple incurved-rim bowls have a subtle wavy line incised below the rim; one example has two lines (Figure 6:D, J). This kind of decoration, seen in the Amuq G assemblages, is also found on a hemispherical, beaded rim bowl (Figure 6:C) that is similar to one from the Amuq G, Late Uruk/EBI contexts at Zeytinlibahçe Höyük, and early third millennium levels at Brak (Braidwood and Braidwood 1960: 279, Figure 220:22-23; Frangipane and Bucak 2001:88, Figure 5:8; Matthews 2003:Figure 5.56:17). An exact parallel to some of the bowls with wavy lines comes from the nearby site of Lower Salat Tepe, where these vessels were found together with vessels of ware group one in a stone-lined cist tomb (Şenyurt 2002: 687–Figure 14, the large brown bowl in the back of the photo). The Salat example is missing its pedestal.

In contrast to the tall, long-stemmed, shallow-bowl fruitstands common in the Carchemish region, at Kenan Tepe most of the fruitstands have short stems and relatively deep bowls (Figure 5:G, J, I). Parallels for the proportions of Kenan Tepe pedestaled bowls are found at Hassek Höyük (Hoh 1981: 71, Abb. 13:2) and Birecik Dam Cemetery (Sertok and Ergeç 1999:104, Figure 8:H, I). A few examples of the pedestaled bowls have deep, ovoid finger, fingernail, or round impressions around the top of the pedestal (Figure 5:G, H). These are found on vessels with small, medium and large pedestal diameters, including two very large bases that may belong to pedestaled jars. Similar decorations are found on late fourth-millennium pedestals at Arslantepe (Frangipane 2002: 142, Figure 12:1). In the 2005 season we found an incurved-rim pedestaled bowl with a rim like Figure 6:D that had fingernail impressions around its neck. This pedestaled bowl had three vessels inside it, including a miniature version of Figure 5:I and two ware-group-one cups like Figure 4: M, N. This finding confirms the association of these forms and wares.

Other parallels not mentioned above include the following: Pedestaled vessels similar to those at Kenan Tepe are found in the burials at Müslüman Tepe (Ay 2004: 380-1, Figures 4, 6, 7). For the bowls in Figure 5G, and Figure 6:B, I, parallels are found in Braidwood and Braidwood 1960: 268, Figure 206:4 [Amuq G]; Frangipane 2000: 467, Figure 13:13 [Arslantepe 3100–2600 B.C.E.]; Hauptmann 2000: 430, Abb. 3:4 [Norşuntepe EBI]; Hoh 1981: 91, Abb. 16:4 [Hassek EB]; Karg 1984: 142, Abb. 30:12 [Burhan EB]; Thissen 1985: 121, Figure 3:8 [Hayaz EB]. The bowl in Figure 6:H has

parallels in: Braidwood and Braidwood 1960: 268, Figure 206:2 [Amuq G]; Sertok and Ergeç 1999:104, Figure 8:K [Birecik Dam Cemetery EB], and Hoh 1981:66, Abb 8:6 [Hassek EB]. The zig-zag incised bowl in Figure 6J has a shape parallel to: Algaze 1990: plate 45D [Kurban V, plain simple ware]. Other parallels to Kurban V from Algaze 1990 include: Figure 6A: plate 45C; Figure 8:A: plate 44:b; Figure 8:C: plate 44e. The pedestal foot in Figure 5:E has a parallel at Brak: Matthews 2003: Figure 5.64:4 [Ninevite 5]. The pedestal foot in Figure 8:O has a parallel in Kurban V (Algaze 1990: plate 51:L).

### *Ware Group III*

The third ware group is a mix of wheelmade and handmade vessels, generally 1.0–2.0cm thick (measured below the rim) containing medium to large grit and chaff, often in large amounts (Figure 4:G; Figure 5:F; Figure 7:A-F; Figure 8:A, D, E, H). The proportion varies widely, as does the size of the grit and chaff. These mostly hand-made pots are lumpy, often lightly burnished on their exterior and inside the rim, and many, usually the cooking pots, contain large grit inclusions (often quartz) up to 0.05cm (Figure 8:A). A few examples are possibly wheel made or wheel finished (Figure 8:H). These vessels generally have a black core and are lightly burnished. Surface color varies from reddish yellow to shades of brown (Munsell 5 YR 6/6 reddish yellow, 10 YR 8/2 very pale brown, 7.5YR 6/4 light brown, 10 YR 5/3 brown). Some vessels have a brown or pink wash or slip.

Ware group three is dominated by open jars, generally with flaring necks and simple rims, and cooking bowls and pots with varying degrees of chaff and white sand-sized or larger angular grits (Figure 7:D; Figure 8:D), while some have mostly chaff (Figure 7:F). A few examples have thickened rims that may be bent or everted (Figure 7:D). Some examples have a subtle thickening of the rim that resembles a triangular lug but we found only one example of a true, full lug (Dodd et al. 2005: Figure 3:M). When preserved, the bases of these vessels have a non-descript, rounded or flat bag-shaped base (Figure 4:G). These vessels are frequently decorated with varieties of fingernail or fingertip impressions, or triangular gouges, in dense clusters all over the shoulders, sides and near the base (Figure 8:A, D). Given their density on many vessels, perhaps these impressions have a functional value. Parallels for these jars include the following: Figure 8:A: Hoh 1981: 73, Abb 15:7 [Hassek EB]; Figure 8:D: Algaze 1990 plate 52:G-H [Kurban V]; Figure 8:E: Hoh 1981: 75, Abb 17:3 [Hassek EB]; For both Figure 8A and 8D: Karg 1983: 141, Abb 29:1-2 [Burhan EB], Thissen 1985: 124, Figure 6:8-9 [Hayaz EB]. For Figure 8:H: Matthews 2003:147, Figure 5.60.10 [HS4, 2900–2500 B.C.E.], Ökse et al. 2001:Figure 7:3,-4 [Salat Tepe EB].

We recovered a number of relatively thick, chaffy, handmade bowls from levels two and three. These are lumped together with ware group three but they contain much more chaff and are apparently fired at a lower temperature than the other members of this group. These open bowls, variably deep and tall or wide and shallow, often have a large diameter, are 1–2cm thick and burnished inside and out. The body of these bowls is generally uneven and rims range from simple rounded to more pointy or flat examples. In complete profiles, the bases are flat or rounded. Two ware sub-types can be distinguished:

those with predominantly chaff temper along with some sand and gravel, and those with an even proportion of chaff and grit. These vessels are variably fired, often unevenly, with no core, a grading core or a thick black core. Surface color is mottled and ranges widely from reddish brown, brown and yellowish brown to pink and red.

*Possible Transcaucasian or related vessels*

One possible Trans-Caucasian jar (Figure 7:A) has a slightly out-turned, slightly thickened, rounded rim with a small/vestigial triangular lug at the rim. It has a micaceous fine grit temper (lots of sand), consisting of mostly white and grey bits with occasional 3–4mm inclusions. The interior is reddish brown; the exterior is black and well burnished but not highly polished. A possible parallel for this vessel comes from the 3100–2600 BCE “royal tomb” at Arslantepe (Frangipane 2000:470, Figure 16:4). Another shape similar to Figure 7:A includes the pots in Figure 7:B,C. These vessels are probably cooking pots, with coarse grit and chaff temper, burnished on the exterior and the rim. These two pots do not have a red-black interior-exterior color contrast like Figure 7:A; instead their fabric and surface color are shades of reddish brown. Parallels for these pots come from Arslantepe (Frangipane 2000: 470, Figure 16:4 [3100–2600 BCE]), Norşuntepe (Hauptmann 2000: 431, Abb. 4:6 [‘monochrome’ EB]) and possibly also Birecik Dam Cemetery (Sertok and Ergenç 1999:Figure 8:G).

Another vessel with possible origins outside Kenan Tepe is the everted rim, dark burnished jar in Figure 4:A. This pot has no visible temper and is well burnished inside and out. Its dark color is distinctive, and recalls later imitations of metallic ware.

*Handles, lids, spouts*

Apart from suggestive thickening at the rim in some jars, handles are rarely found on any vessels. In most cases, the ‘triangular lugs’ are merely a pinched-out area of the flaring rim rather than a distinctive handle attachment. A few loop and rectangular handles are known but their numbers are small. We found a small number of pierced lug handles from the shoulder of vessels, which come in wares one and two (ware one: Figure 4:F; ware two: Figure 6: F,G; Figure 8:L). The ware-two examples probably belong to the footed vases found at Arslantepe (Frangipane 2000:467, Figure 13:9-10), Birecik Dam cemetery (Sertok and Ergeç, 1999:103, Figure 7:J, K, L), Hacinebi (Pearce 2000:140, Figure 16b), Hassek Höyük (Hoh 1984:91, Abb. 16:1-2), Tell Brak (Matthews 2003:Figure 5.66:11), Tell Mohammed Arab (Period I, Roaf and Killick 1987:209, figure 3, left side), and Hayaz Höyük (Thissen 1985: 123, Figure 5:29). One example of a horizontal loop or single vertically pierced handle is notable (Figure 7:G), with a parallel from Hayaz Höyük EB contexts (Thissen 1985:124, Figure 6:35).

Lids are generally flat, made in the ware of group three, and have loop, square, and unpierced handles (Figure 4:P). Four examples of a finger-impressed swirl on a lid are particularly noteworthy (Figure 4:H). We found a handful of straight spouts from globular vessels in Area F, usually occurring in ware two, often burnished. A complete spouted vessel in a browner version of this ware is lightly burnished, has a flat base, a thick body with distinctive wheel-derived rills inside, and a tightly constricted opening

(Figure 5:A). Potential parallels for this vessel are found at Godin Tepe Period V (Badler 2002:143, Figure 13:B1 479 #173) and Brak Ninevite V contexts (Matthews 2003: Figure 5.55:3-4 [shape but not neck]; Figure 5.63.13 [neck only]).

### *Decoration*

Decoration in the Early Bronze Age assemblage is somewhat specific to ware and form. Ware group one is often wet smoothed and has subtle horizontal grooves on the shoulder. Ware group two is vertically burnished. Pedestaled vessels in ware group two sometimes have fingertip or fingernail or round impressions around the join of the pedestal to the bowl. As discussed above, some bowls in ware group two have a shallow zig-zag incision below the rim (Figure 6: C,D,J). This zig-zag may be related to Ninevite -V designs that have wavy lines (Swartz 1988:87-88, Figure 32:1,4,5; 108-109, Figure 43:4,9,12; 116-117, Figure 47:6), or other such lines on jar shoulders, either incised or rendered in reserve slip (Hoh 1984: Abb 14:2; Karg 1984: Abb 32:25). This design is also found in the Amuq G (Braidwood and Braidwood 1960: Figure 220:23-25) and Kurban VI (Algaze 1990: Plate 21:I). The most common decoration is fingernail or fingertip impressions or gouges on coarse vessels in ware group three (Figure 8:A). One example combines thin, vertical string impressions with light fingernail impressions (Figure 8:D). Perhaps the preference for fingernail impressions shares some stylistic or functional relationship with this same decoration on strap-lugged holemouth jars at Brak and other sites in the Ninevite V region (Matthews 2003: Figure 6.69:22).

Ware group three is often burnished, sometimes lightly, sometimes intensively. Less common are fingernail impressions in patterns or registers on finer orange and grey wares that are similar to ware two (Figure 5:C). Some examples of these finer wares, all body sherds, have fingernail impressions separated by a horizontal wavy line reminiscent of the wavy incisions on incurving rim bowls (Figure 5:D; 7:H). Other decorations include round punctation and comb-tip punctation on medium to thick pots with grit and chaff temper in a distinctive reddish-brown fabric (Figure 5:F, K). A small number of combed or incised sherds are also present (Figure 8:K). Painted sherds and molded decorations are extremely rare.

### **Levels 5-7: Transitional Late Chalcolithic–Early Bronze Age?**

In this discussion I am considering only trenches F1, F4 and F6, and one should be cautious of assuming that these small exposures are representative of the entire settlement at this time. Nevertheless, several patterns (not quantified) seem to emerge. As we go deeper in F1, the fine vessels of ware group one above nearly disappear and many possible examples of this ware have a different feel. Also, the pedestaled bowls that dominated levels two through four appear less frequently, and sometimes in wares of odd color or temper, or with longer stems. The zig-zag incised, incurving rim, vertically burnished bowls disappear, as do pierced lug handles and finger-impressed swirl lids. At the same time, vertical burnishing, while still present, is often done lightly or much more loosely applied, leaving distinctly spaced lines similar to pattern burnish, rather than a

fully burnished surface. Finally, although there are just a few examples of reserved slip from area F, most of them come from earlier contexts in trench F4.

The forms that disappear or become less frequent in the earlier levels are ‘replaced’ by vessels with lots of medium or large chaff, bowls and jars in a ‘simple’ ware, and several distinctive shapes: a triangular or hammerhead-like-rimmed bowl (Figure 9:A, B, C; Figure 10:A, B, D, F), a small carinated bowl that sometimes has a groove on its shoulder (Figure 9:J-L, N, O), and a conical bowl with deep wheel marks on its interior and a coarse, unfinished and untrimmed string cut base (Figure 9:E). In addition, the flaring rim jars in these levels become coarser and more friable, and many have a tapered rim rather than a simple rounded rim. If we include a group of Late Chalcolithic vessels from trench F6, we can summarize the Late Chalcolithic to Early Bronze transitional period ceramics from Area F with two general wares as follows:

I) A fine grit with occasional fine chaff, sandy, micaceous, orange-pink surface color, medium to well fired wheelmade ware with no surface treatment aside from occasional vertical or light burnishing.

II) A fine to large chaff with fine grit (often angular white grits), surface color mottled pink to light brown, low fired, porous, smoothed or lightly burnished ware.

This ware dichotomy is no doubt oversimplified and will be improved upon during ongoing analysis of additional material.

#### *Ware Group I*

Ware group one could be called a ‘simple ware,’ with the distinctive sandy or gritty feel of an untreated surface, although it sometimes has some fine chaff. Apart from occasional light burnishing, sometimes vertically, the surface is untreated and shows wheel striations. Vessels in this group are thinner than the other Late Chalcolithic ware group and sometimes have a bright pink or reddish surface or core. Common forms in this ware include hammerhead-rimmed bowls (Figure 9:A; Figure 10:B, D, F), beaded or everted and tapered-rim carinated or open bowls and neckless jars (Figure 9:H, K, L, M, N, P; Figure 11:C, G). Jar shapes in ware one include Figure 9:I.

Parallels for the forms in ware group one include: for Figure 9:A (Hoh 1984: 91, Abb 16:6 [Hasek EB]); Matthews 2003:Figure 5.55:7 [in association with beveled rim bowl]; Porter 1995: Figure 11:5 [2600–2400 BCE]; for Figure 9:N (Braidwood and Braidwood 1960: 270, Figure 208:6 [Amuq G]); (Hauptman 2000:Abb. 7:3 [Norşuntepe black burnished]); (Hoh 1981: 67, Abb 9:9 [Hasek EBI]); (Schwartz 1988: Figure 53:6 [Leilan LC]); for Figure 10:B: (Helwing 2002: Tafel 1:9 [Hasek LC]); for Figure 10:D (Hoh 1984: 86, Abb 11:4 [Hasek LC]); for Figure 11:C (Filli 2003: Figure 4.21:5,6,8 [Brak LC]); (Pearce 2000: Figure 8:H [Hacinebi LC, late Phase A, B1]); (Schwartz 1988: Figure 53:13 [Leilan LC]); for Figure 9:I (Frangipane 2000: 456, Figure 2:22 [Arslantepe LC]; and 459, figure 5:9 [Arslantepe EBIA]).

*Ware Group II*

Ware group two comes in many of the same forms as group one, but generally in thicker, rougher wares. This ware group often has a distinct dark gray core. These vessels are sometimes wet smoothed, lightly burnished or slipped. Some examples have a distinctive burnished pale yellow slip on a low-fired, crumbly, light red fabric. Some finer examples in this ware are similar to Late Chalcolithic ware group one in that they contain minimal fine chaff and fine grit, but these are still distinguished by a 'chaffy' appearance with chaff facing or lighter weight. A notable sub-ware within group two contains fine chaff and large lime inclusions. These vessels, frequently carinated bowls, often have pronounced wheel marks on the lower half of their interior surface and a flat base (notably NOT string cut). Ware group two includes cooking pots, which we have not yet subdivided into sub-wares. Sooting, calcareous inclusions, simple flared rims, and simple vertical loop handles often distinguish cooking pots from other vessels in ware group two. Examples of shapes in ware two include Figure 9:B, C, D, E, F, G, J, O, Q; Figure 10:A, C, E, I; Figure 11:A, B, D, E, F, H, J; Figure 12:A-I.

Parallels for the forms in ware group two include: for Figure 9:B (Hoh 1981: 69, Abb 11:4 [Hasek EB]); for Figure 9:D (Pearce 2000: 131, Figure 7b [Hacinebi LC]); for Figure 9E (Ay 2004: 381, Figure 7: the middle bowl in the second vertical row from the left looks like a coarse bowl with a string cut base, apparently found in association with vessels like Kenan Tepe's Early Bronze Age ware group I, as well as the pedestaled vessels of Ware Group II and, it seems, metallic ware cups). Further parallels for Figure 9E include: (Badler 2002: 107, Figure 16: middle row [Godin tepe period V]), (Frangipane 2000: 459, Figure 5: 4-7 [Arslantepe EBIA, 3500–3100 BCE]), (Pearce 2000: 137, Figure 13:b-c [Hacinebi 'Uruk' coarse conical bowl]). Parallels for other figures include: for Figure 11:A: (Gut 2002: 30, Figure 7: 2<sup>nd</sup> row, 2<sup>nd</sup> from right, MN 2-4 [Nineveh after Thompson and Malloy 1933]); (Özgen et al. 1999: Abb 24:3 [Oylum LC]); for Figure 11:B: (Algaze 1990: Plate 37:C [Kurban VI - LC]); Felli 2003: Figure 4.19:8, Figure 4.23:10 [Brak LC]); Gülçür 2000: 404, Abb 44: bottom row, 4<sup>th</sup> from left [Norşuntepe LC]); for Figure 11:E: (Akkermans 1988: plate 110:123 [Hamman VB = LC]); Badler 2002: 104, Figure 13: B1479 #181 [Godin Tepe period V]); for Figure 11:F: (Gut 2002: 39, Figure 17:1 [Nineveh, upper MN3–lower MN4]); (Pearce 2000: 127, Figure 3:g, and 134, Figure 10:a [Hacinebi LC]); for Figure 11:H: (Frangipane 2000: 456, Figure 2:17/22 [Arslantepe LC]); (Pollock and Coursey 1995: 140, Figure 7:f-g [Hacinebi LC]); for Figure 12:A: (Frangipane 2000: 456, Figure 2:5 [Arslantepe LC]); for Figure 12:B: (Algaze 1990: plate 31:D [Kurban VI–LC]); (Pearce 2000: 133, Figure 9:b [Hacinebi LC phase B1-B2]); for Figure 12:C: (Frangipane 2000: 456, Figure 2:7 [Arslantepe LC]); (Schwartz 1988: Figure 52:7 [Leilan LC]); for Figure 12:D: (Pearce 2000: 133, Figure 9:e [Hacinebi LC]); for Figure 12:E: (Akkermans 1988: plate 106:93 [Hamman VB–LC]); for Figure 12:F: (Algaze 1990: plate 30:F [Kurban VI–LC]), (Pearce 2000: 131, Figure 7-f [Hacinebi LC, late phase A]); (Schwartz 1988: Figure 58:I [Leilan V = LC]); for Figure 12:G: (Felli:2003: Figure 4.17:3 [Brak LC]), (Pearce 2000: 126, Figure 2:e [Hacinebi LC, late phase A]); for Figure 12:I: (Thissen 1985:119, Figure 1:39 [Hayaz Höyük LC]).



A few debris contexts near the base of test trench F6 contained a large variety of forms related to the Amuq F and Late Chalcolithic of Anatolian sites like Hacinebi, including simple rim open bowls (Figure 12:F,G), carinated fineware bowls (Figure 11:C), a variety of hammerhead bowls or platters (Figure 12:A-E, H, I), jars with an internal ledge or flared rim (Figure 11:A,B,D,E), and a casserole (Figure 11:F). This assemblage is somewhat different from, and perhaps earlier than, the material from contexts such as the oven (L4007, 4023) and pits (L4024/4033 and L4028/34/43) in F4, and the materials in level five of F1. The F1 and F4 contexts seem to range into a transitional period between the Late Chalcolithic and the Early Bronze Age, evidenced by the appearance of vertical burnishing, pedestal bases, an occasional horizontal-grooved open bowl similar to Figure 5:I, a few pieces of diagonal reserved slip, string cut bases and triangular-rimmed bowls.

#### *Reserved Slip*

We recovered only five sherds of reserved slip from Area F during the first three dig seasons, all of them small body sherds, about 1cm thick, most likely from jars. One sherd comes from F8 L8010 while the others come from F4 L4024, L4025 and L4034. In each case the vessels were wheelmade and the design is diagonal lines, in one case with a horizontal wavy line as well (Figure 9:Q). Three examples have chaff temper with some sand, while the fourth has chaff temper with a few white grits. Interior surfaces are light brown, brownish grey or pink (Munsell 7.5YR 6.5; 10YR 6/2, 7/5 YR 7/4), and exterior surfaces are pale brown or light reddish brown (Munsell 10YR 6/3, 2.5Y 8/3, 10YR 7/4, 2.5YR 6/4) with a pale yellow slip (2.5Y 7/3). Two examples have an abrupt, thick black or grey core, while the others grade to a dark core. The largest example is also burnished horizontally (Figure 9:Q). Given their rarity at Kenan Tepe, these vessels are probably imports. Parallels to Figure 9:Q include: (Hoh 1984:89, Abb 14:2 [Hassek EB]); (Cecchini and Mazzoni 1998:59 and 94, Figure 11:7 and 31:1 [Afis LC]).

#### *Handles, lids, spouts, bases, decoration.*

In the material analyzed thus far from levels five through seven, few handles or lids could be identified, and we found only a couple of straight spouts. Bases are both flat or ringed, with string-cut bases apparently more common than in levels one through four (Figure 9:E,F). Decoration is rare in these levels but includes combed sherds, cross-hatching and fingernail impressions on jar shoulders in limited spaces (not all over the vessel as in levels one through four), as in Figure 10:G. A single painted bowl has cross-hatching between horizontal, parallel lines (Figure 11:I).

#### *Potentially Uruk related forms*

Although we have not yet found any 'true' Uruk forms at Kenan Tepe, such as nose lugs, beveled rim bowls, or drooping spouted jars, we do have several forms potentially related to southern Mesopotamian Uruk period assemblages. These include the coarse bowls with a string cut base, found in levels five through seven (Figure 9:E), incised geometric designs on jar shoulders (Figure 10:G), a flared 'round-rim' jar with a

tall neck (Figure 9:I), a jar with ledge rim (Figure 11:J) and a single example of a bowl with something resembling a lip spout (Figure 10:H [from trench G6]). As others have observed, the presence of forms similar to Uruk types, or of mineral inclusions in the ware, does not mean that these vessels are imports from southern Mesopotamia (Pollock and Coursey 1996:234). As noted above, these potentially Uruk-related forms have parallels at other north Mesopotamian sites and may have arisen from indigenous forms, or local experimentation with Uruk forms (Pollock and Coursey 1996:239).

### **Ceramic summary: dating and connections**

Two sealed contexts from Area F are dated by carbon-14 analysis. These are the level four ashy debris layer/ pit (F7, L7094) beneath level two to three surfaces, and the oven in F4 (F4, L4007/4023). A third context, an unsealed surface (F4, L4004) above the F4 oven, is also carbon dated.

Context F7 L7094 yielded a two sigma calibrated date of 3360–3020 BCE (F7.7094.28). Selected vessels from F7 L7094 are illustrated in Figure 8. This context contained nearly the full range of Early Bronze Age types and wares described above. Not illustrated here are a ring base bowl similar to Figure 6:E, I, L, and two large pedestal bases with finger-impressed decoration around the top like that shown in Figure 5:H. As discussed above, the shapes and decorations in this context, as well as those throughout levels two through four have parallels to the Amuq G (Braidwood and Braidwood 1960), Arslantepe VIB2 (2900–2800 BCE: Francipane 2000:451), Brak Early Third Millennium (Matthews 2003), Leilan III (Ninevite V: Schwartz 1988:xix), Hassek Early Bronze Age (Hoh 1981, 1984) and Kurban V (“Early Part of the Early Bronze Age”: Algaze 1990:281).

Not surprisingly, Kenan Tepe is not only geographically ‘between’ the Ninevite V areas and the Upper Euphrates, but its ceramics also have similarities to both the Ninevite V assemblages and those of the beginnings of the Early Bronze Age at sites to the west such as Hassek. A few rare but key diagnostics, including diagonal reserve slip, zig-zag incisions on bowls, and pierced lug handles, also have parallels within this time period. This ceramic evidence, combined with the L7094 carbon date, as well as the absence of metallic ware, horizontal reserve slip, dark rimmed orange bowls, or triangular-lug handles in significant quantities argue for a dating of levels two through four to the end of the fourth or the turn of the third millennium.

Context F4 L4004 yielded a two sigma calibrated date of 3350–2910 BCE (KT 4061). A distinctive spouted vessel from this context, in Late Chalcolithic-Transitional period ware I, is illustrated in a previous report (Parker et al. 2003:174, figure 17X). Samples from within the F4 oven yielded two-sigma calibrated dates of 3360–3030 BCE (KT4157), 3630–3570 BCE and 3540–3360 BCE (KT4229), and 3660–3620 BCE and 3600–3520 BCE (KT4253). In addition to the vessels illustrated in Figure 10:B,G many examples from this context are illustrated in a previous report (Parker et al. 2003:165, Figure 12). The materials from these dated contexts, and throughout levels five through seven, have parallels in Late Chalcolithic and transitional period assemblages at a similar

range of sites as the material in levels two through four. Parallels from levels five through seven and selected contexts in trench F6, are found at Hacinebi (Late Chalcolithic phases A & B [4100–3300 BCE] Pearce 2000), Kurban VI (Late Chalcolithic: Algaze 1990), Arslantepe VII (3900–3400 BCE) and VIA (3400–3000 BCE) (Francipane 2000:451), Brak (Fourth Millennium: Felli 2003), Leilan IV (Late Uruk: Schwartz 1988: xvii), and Hassek Late Chalcolithic (Hoh 1981, 1984).

It is difficult to pin down the transitional period between the potentially earlier fourth-millennium examples from trench F6, the other Chalcolithic materials from levels five through seven in trenches F1 and F4, and the Early Bronze Age assemblage from levels two through four. Some of the carbon dates from F4 contexts, discussed above, overlap the upper range of the date from F7 L7094 of level four. Without more carbon-14 dates, a quantified seriation, and larger exposures of sealed, stratified contexts, it is difficult to discern if levels five through seven should be seen as “transitional” along a continual development from the fourth to the third millennium, or if a settlement hiatus exists. At the present time I am inclined to see transition within continuity, rather than hiatus and abrupt change.

Aside from changes in some ceramic forms, and the appearance of Early Bronze Age ware group I, the most notable change in the ceramics from levels five through seven to levels two through four is the replacement of the simple gritty potsherds of Late Chalcolithic ware group I by the intensively vertically burnished potsherds of Early Bronze Age ware group II. Also, although Early Bronze Age ware group III is fairly similar to Late Chalcolithic ware group II, the Bronze Age version is more frequently burnished and often has fingernail or other impressions. Thus, it seems that the ceramics of levels two through four required more labor investment in surface treatment and decoration. Perhaps labor-saving changes in the manufacturing process offset the additional time necessary for burnishing and incising. Despite these changes, continuity in ware and temper is indicative of a gradual local development spanning the late fourth millennium to the early third millennium BCE.

### **Small Finds: levels 1-7**

The small finds from levels one through seven in Area F consist of pierced pot discs (rounded and pierced potsherds, probably used as spindle whorls), beads, figurines, cylinder seals, miniature vessels, andirons, and a metal pin. Some of these finds are described in previous publications cited throughout this report, and we only consider them briefly here. The most numerous finds from levels two through four are andirons and pierced pot discs. None of the andirons have designs or decorations of any kind. They are round, oval or rectangular in cross-section, sometimes pierced through the narrow point between the base and the top (very similar to the examples illustrated in Smogorzewska 2004: Figure 9, and Figure 10:1-2). The highest concentration of andirons (six) comes from the level two surfaces around a wall (Locus 19) in trench F14. The presence of these andirons and those throughout all levels in Area F is consistent with the simple ovens and

cobblestone surfaces also found here, evidence of domestic activities such as food preparation.<sup>28</sup>

The pierced pot discs, presumably spindle whorls, indicate domestic textile production activities. Notably, F4 L4023 (level six) contained eight pierced pot discs, an andiron (F4.4023.4225; Parker et al. 2003:141, 173: Figure 16S), a large flint sickle blade (F4.4007.4088; Parker et al. 2003:142, 174: Figure 17Z) and a steatite bead (F4.4025.4180; Parker et al. 2003:139, 172: Figure 15H). We interpret this context as a refuse deposit that offers a glimpse of domestic activities taking place during that time at Kenan Tepe. Trench F4 was also rich in other finds, including stone beads, additional pierced pot discs, a bronze pin with a fiddlehead scroll (F4.4025.4160; Parker et al. 2003:141, 173: Figure 16Q), and a cylinder seal (F4.4026.4132; Parker et al. 2003:137, 172: Figure 15A). The pin, from F4 L4025, and clay cylinder seal,<sup>29</sup> from F4 L4026, are consistent with a Late Chalcolithic or transitional Late Chalcolithic to Early Bronze Age date for these levels.

#### THE LATE CHALCOLITHIC AND EARLY BRONZE AGE AT KENAN TEPE, AND IN ITS REGION: SUMMARY AND CONCLUSIONS

Following the Ubaid period, Kenan Tepe expanded beyond the tell into Areas F and G during the Late Chalcolithic Period. This area continued to be occupied into the Early Bronze Age but was abandoned at some point in the mid third millennium while the tell was resettled by sometime before the turn of the second millennium. The domestic character of Area F continues across the Late Chalcolithic into the Early Bronze Age. Thin mudbrick walls, cobblestone surfaces, pits, small ovens and stone installations, combined with artifacts such as spindle whorls and andirons, found across all levels, are characteristic of self-sufficient domestic activities. The lack of substantial architecture and general absence of stone foundations is notable, especially when contrasted with the monumental Early Bronze Age wall foundations found in the step trench on the Tell (Parker et al. 2005:13).<sup>30</sup>

The carbon dates and ceramic corpus from Area F suggest a general continuity between the Late Chalcolithic and Early Bronze Age periods. The carbon date range from trench F7 L7094 overlaps some of the dates from levels five through seven in trench F4.

<sup>28</sup> The symbolic or ritual role of andirons must also be considered. Even andirons without designs or obvious anthropomorphic shapes may be simplified versions of and allusions to the same figures (e.g. bulls) depicted in the form of more clearly symbolic andirons (Smogorzewska 2004:152).

<sup>29</sup> In 2004 we found a clay cylinder seal in F7, and in 2005 another clay cylinder seal turned up in F2, both in contexts equivalent with levels four or five.

<sup>30</sup> During the 2005 season, not discussed here, we found structures with brick walls up to 1m wide around trench F1 (in Trenches F19, F20 and F22) in levels associated with the level four oven and surfaces in Figure 2. In contrast, we continued to find thin mudbrick walls, with widths less than half a meter, in trenches in the rest of the area F in levels contemporary with levels 4 and higher. This architectural differentiation is likely due to functional differences between the structures.

Similarly, although some Late Chalcolithic ceramic forms disappear (e.g. hammerhead bowls) as Early Bronze Age forms become more prevalent (e.g. pedestaled bowls), most jar and bowl shapes remain very similar. Although burnishing becomes more intensive in the later period, chaff and grit temper continue in use, and overall the wares do not change dramatically. The best evidence for settlement hiatus, the collapsed structure in level four of trench F1, is difficult to interpret: it could represent a period of abandonment and therefore a significant break with the material above it, or it may simply mark accidental or deliberate leveling of the structure that took place while other parts of the site were still occupied. The material below this collapse becomes increasing Late Chalcolithic in character, but not starkly so. This suggests that if this level marks a localized hiatus in settlement, it was short-lived.<sup>31</sup>

Two surveys of the portion of the upper Tigris River valley between the city of Bismil and the Batman River confluence found many small Late Chalcolithic sites but few Early Bronze Age settlements (Algaze et al. 1991:182; Ay 2000). The apparent drop in local settlement density, and by extension population, may be due to issues of ceramic visibility and recognition from these periods (Algaze 1989:245).<sup>32</sup> Alternatively, this phenomenon may be related to urban growth and settlement reconfiguration in northern Syria and the Euphrates Valley (Algaze et al. 1991:182; Algaze 1999:555). It remains unclear just how urbanization affected the upper Tigris River valley. The only apparent candidate for urban status in the valley in the Early Bronze Age is Pir Huseyin, estimated to be at least nineteen hectares by the late third millennium.<sup>33</sup> A late-third millennium occupation is indicated by the presence of dark-rimmed orange bowls and red brown wash ware across the full extent of the site, but we must keep in mind that these wares continue in use into the second millennium.<sup>34</sup> A firmer indicator of a late third-millennium settlement is the presence of metallic wares and 'Early Trans-Caucasian-like' wares in small amounts.<sup>35</sup> Assuming that Pir Huseyin was fully occupied in the late third millennium, it was possibly the only urban site in the valley at that time and could not have absorbed the population loss implied by settlement patterns. Perhaps the increase in population at urban centers outside the valley derived in part from valley residents moving east, south or southwest to take advantage of perceived urban opportunities, including work, protection, trade, or political and religious prestige. Alternatively, the drop in settlement density during the Early Bronze Age may be related to increased nomadism during that period, or local political realignment.

<sup>31</sup> We should be able to answer these questions once we have excavated levels five through seven in other trenches in Area F.

<sup>32</sup> For example, it is reported that the coarse chaff-tempered vessels of Kenan Tepe Early Bronze Age ware group III were likely mistaken for Neolithic or early Chalcolithic period vessels during the surface survey of Ziyaret Tepe. This mistake was discovered when this ware was found in Early Bronze Age levels in the step trench (Matney et al. 2003:179).

<sup>33</sup> Brian Peasnell, personal communication, 2005.

<sup>34</sup> *Ibid.*

<sup>35</sup> *Ibid.*

The expansion and contraction, settlement and abandonment of Kenan Tepe between the Ubaid and the Early Iron Age alternatively may be related to chiefdom cycling in the Upper Tigris River Valley.<sup>36</sup> Chiefdoms are adequately described as “regionally organized societies with a centralized decision-making hierarchy coordinating activities among several village communities” (Earle 1987:288). Chiefdoms are known to develop and collapse in repeated cycles in a process whereby “centers of power shift or rotate over the landscape, as first one community and then another assumes prominence” (Anderson 1994:10). From the Late Chalcolithic and Early Bronze Age periods onwards, the Upper Tigris River Valley was apparently by-passed by major trade and transportation routes that turned away from the Tigris in northern Iraq to cross North Syria, intersecting many developing urban centers before turning northwest of the Tigris. Thus, Uruk trade moved up the Tigris Valley to Mosul, then across north Syria and up the Euphrates Valley (Algaze 1993:47: Figure 21). The effect may have been to create a politically isolated area that was ‘free’ to develop along a relatively independent socio-political trajectory.

To date we have little evidence for extensive southern Mesopotamian activities in the Upper Tigris River Valley in the Late Chalcolithic Period and the first half of the Early Bronze Age, but such material may be found at many sites in the region where work is ongoing. At least a few beveled rim bowls are published from the region, including one from Giricano (Schachner 2004:533: Figure 22, top right) Lower Salat Tepe (Şenyurt 2004: 654, Figure 7), and Ziyaret Tepe (mentioned in Roaf 2005:23), and several from Çattepe (Velibeyoğlu 2002:825, Figure 39:1-6). The relative isolation of the valley in terms of international trade, if ongoing excavations do not prove otherwise, may explain in part why urbanism did not arise in the area when it developed nearby in the Euphrates Valley and north Syria.<sup>37</sup> Indeed, throughout its history, the Upper Tigris River Valley seems to have been under the ‘influence’ of outside powers, subject to loose hegemonic rule or periodic military campaigns. In the mid and late third millennium this may have included the far-reaching power of Ebla to the southwest and the Akkadians to the southeast (Matthiae 1981; Drower 1971:332). Yet the Upper Tigris region was located at the fringes of these and other major power centers in Anatolia, Mesopotamia and the Levant. Thus, outside powers apparently did not fully or directly control the area around Kenan Tepe until the Assyrians established themselves at Ziyaret Tepe<sup>38</sup> in the Iron Age. In the absence of direct, sustained control by foreign powers, local leaders and their communities would have been able to compete for control of resources and indigenous

<sup>36</sup> Although the chiefdom concept has its variations and potential problems when applied to the ancient past, it is a useful way to consider the socio-political situation in the Upper Tigris River Valley.

<sup>37</sup> Despite any political or economic circumscription, valley residents were not in a bad position. Even if the major land trade routes skirted the valley, its inhabitants were relatively close to mountain resources in the north, had access to materials coming down the river from the Diyarbakır area, and the opportunity to send goods downstream on the Tigris. Indeed, Kenan Tepe is situated on a ridge at the Tigris River’s edge. Although the River’s course may have shifted across the flood plain over the period of Kenan Tepe’s inhabited history, the site always remained close to the water. Perhaps this location was chosen for access not only to water but also to riverine food and plant resources, trade, and a measure of protection.

<sup>38</sup> Most likely the location of the city of Tushan (Matney et al. 2003:190-191).



political allegiance. This condition may have fostered chiefdom cycling and in the process prevented indigenous urbanism by maintaining sub-state polities in the region during the Late Chalcolithic and Early Bronze Age periods.

At this time, however, evidence for chiefdoms in the upper Tigris River Valley is fragmentary. Evidence for chiefdoms typically includes a multi-tiered settlement hierarchy, increased control of goods production and distribution (e.g. a tributary system) and enhanced social differentiation, such as segregated housing for elites and non-elites, monumental architecture associated with elite houses or institutions, or separate burial practices and locations for elites and non-elites (Wright 1984). Competing chiefdoms also may engage in warfare, which contributes to shifting centers of power as the groups trade victories. As yet, the Late Chalcolithic to Early Bronze Age settlement pattern in the Upper Tigris Valley is not entirely clear; so far it consists of at best a two-tiered settlement system, with a few small sites around 3 hectares, and a couple of sites, including Kenan Tepe, approaching four, five, or six hectares (Ay 2000). It is also difficult to know how large the surveyed sites were in any given time period, although ongoing excavations at several sites should answer this question. Perhaps a regional center of greater size lies beneath the substantial Assyrian remains at Ziyaret Tepe, as indicated by the 14m of occupation levels dating to the Early Bronze found in the step trench (Roaf 2005:21).

Regarding status differentiation, goods management or warfare in the valley: the only burials at Kenan Tepe that potentially date to the Early Bronze Age contain simple pots or no grave goods.<sup>39</sup> Early Bronze Age stone-lined cist burials at nearby Lower Salat Tepe contain ceramic vessels, bronze pins and rock crystal beads (Şenyurt 2002:694-695) but apparently not riches in metal or weaponry,<sup>40</sup> as in the Birecik Dam Cemetery (Şenyurt 2002; Sertok and Ergeç 1999). Despite the lack of rich graves, there is some evidence for wealth at Kenan Tepe. This includes the beads and metal pin from trench F4 (discussed above), and a cache of over 100 beads found in a pot during the 2005 season. There are also at least five cylinder seals (but no sealings) from Late Chalcolithic or Early Bronze Age contexts, and others from later periods, possibly indicating some form of goods management. Seals and sealings were recovered from the Early Bronze Age layers of the step trench at Ziyaret tepe, but not from clear contexts (Matney et al. 2003:179). It is not clear if cylinder seals, beads and metal pins are typical possessions of all persons in the region,<sup>41</sup> or if they represent a significant accumulation of wealth.

<sup>39</sup> There is now an exception to this statement: as noted above in the discussion of Level 1, during a southward expansion of trench F1 in 2005 (dug as trench F22), we discovered a burial (F22, L13) associated with a bronze pin in Level 1.

<sup>40</sup> However, the excavators note that the burials were robbed “either during the period to which they belong or immediately afterwards” (Şenyurt 2002:695), and robbers likely would have removed any highly valuable items from the graves.

<sup>41</sup> The fact that beads, pins and pots were found in the Salat Tepe graves despite the activities of robbers, suggests that these items were common possessions and not necessarily objects of great value.

The only evidence for monumental architecture at Kenan Tepe in these periods are the large walls, built ca. 3000 BCE, uncovered in the Area A step trench and Area C soundings (Parker and Dodd 2005:75-77; Parker et al. 2006:102-104). It is not clear if both of these walls were built to retain the growing tell, provide defense, or as part of large buildings. If they were built for defense, they could indicate increasing conflict in the late fourth to early third millennium.<sup>42</sup> Regardless of their purpose, these walls likely required significant investment of energy for a small community to set the stone foundations and manufacture the bricks.

In sum, current data are not sufficient to argue definitively for chiefdom cycling as characteristic of the Upper Tigris River Valley, but the data from ongoing research throughout the region should contribute to a better understanding of these issues in the near future. If the picture remains one of a few small settlements with little evidence for social differentiation, control of production and distribution, or warfare, then perhaps the socio-political system in the region is best described as multiple simple chiefdoms (Wright 1984) that abandoned their settlements during periods of localized environmental or social stress, whether internal or from outside powers such as the Akkadians. Instead of conceptualizing this area as one that 'failed' to urbanize until later periods on its own, or as a 'backwater' border region without social evolutionary significance, we should begin to discuss the kinds of political organization that potentially characterized the area. Concepts like chiefdom cycling may lead us to an understanding of political trajectories that provided alternatives to urbanism and urban-centered states.

<sup>42</sup> A similar circuit wall is reported at Ziyaret Tepe (Roaf 2005:23), although its association with dark-rimmed orange bowls suggests that the wall is significantly later than the one at Kenan Tepe.

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<i>Trench</i>	<i>Locus</i>	<i>Type</i>	<i>Orientation: Head-Feet</i>	<i>Facing (on L/R Side)</i>	<i>Preservation Full/Partial/Poor</i>	<i>Age</i>	<i>Sex</i>	<i>Goods</i>
F1	1004	f (?)	N-S (?)	W (on right side)(?)	Poor	adult	X	none
F1	1008-A	e (?)	W-E	N (?)	Partial	adult	X	none
F1	1008-B	X	X	X	Poor; single ulna mixed with L1008A	child	X	none
F1	1011/21- A	e	W-E	N (?)	Partial	adult	n/a	possibly miniature vessel KT1087 and spindle whorl KT1057
F1	1011/21-B	e	W-E	S	Partial	adult	n/a	juglet KT 1118
F1	1017/22	X	X	X	Poor; only skull fragments	adult	X	none
F5	5000/5005	f	SE-NW	NE (on right side)	Full	20-35	male	bead/spindle whorl KT5029
F6	6004	X	X	X	Poor	4 +/- 1	X	none
F6	6011	X	X	X	Poor	adult	X	none
F7	7006	f	W-E	N (on left side)	Full	child	X	none
F7	7028/54	f	W-E	S (on right side)	Full	25-45	female	none
F7	7084	f	N-S	E (on left side)	Full	adult	n/a	none
F14	7	f	E-W	N (on right side)	Partial	adult	n/a	none
G6	8	f	W-E	S (on right side)	Full; very large person, massive bones.	20-40	male	none

Table 1  
Area F / G Burials Summary for the 2000 - 2002 Seasons  
(?) = uncertain attribution; X = cannot determine;  
n/a = information not available; f = flexed; e = extended

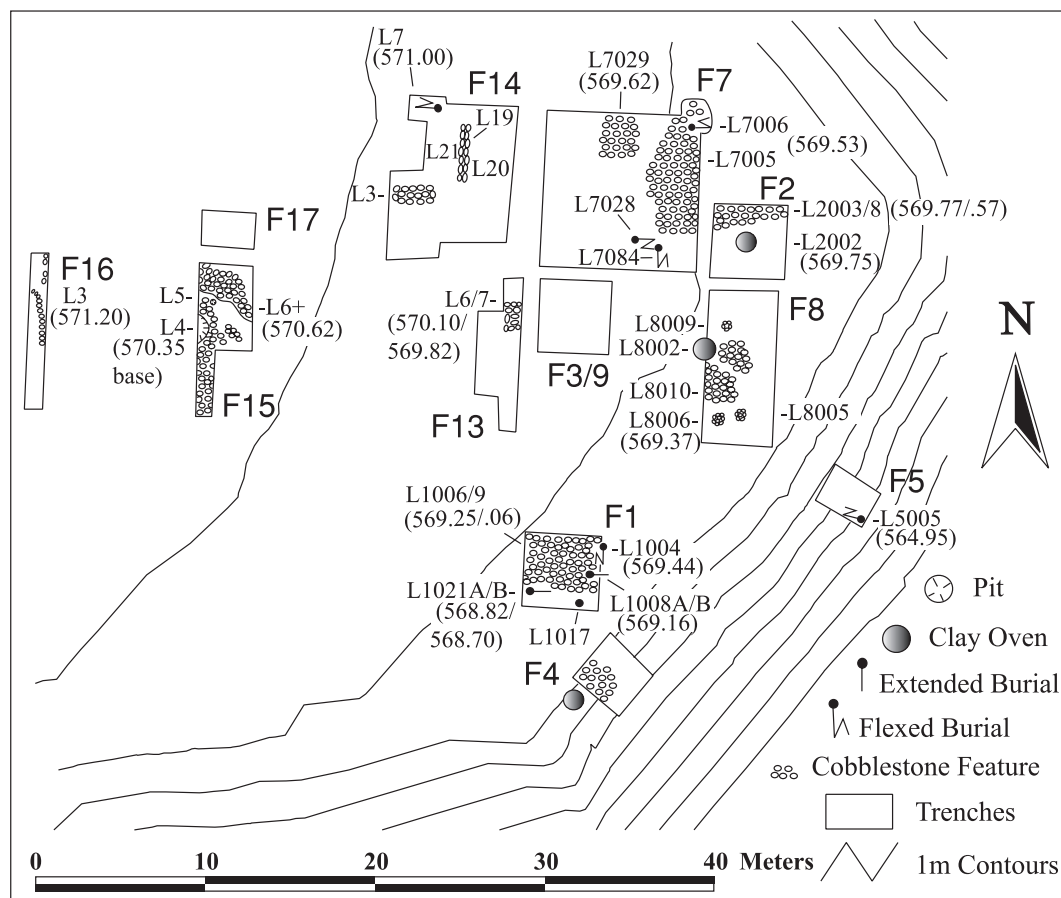


Figure 1. Area F: Levels one and two. Elevations not appearing on the plan include the following (top elevation is listed): F7, L7028: 569.60; F7, L7084: 569.46; F8, L8002: 569.58; F8, L8005: 569.20; F8, L8009: 569.26; F8, L8010: 569.44; F14, L3: 570.62; F14, L19: 570.52; F14, L20: 570.31; F14, L21: 570.38.

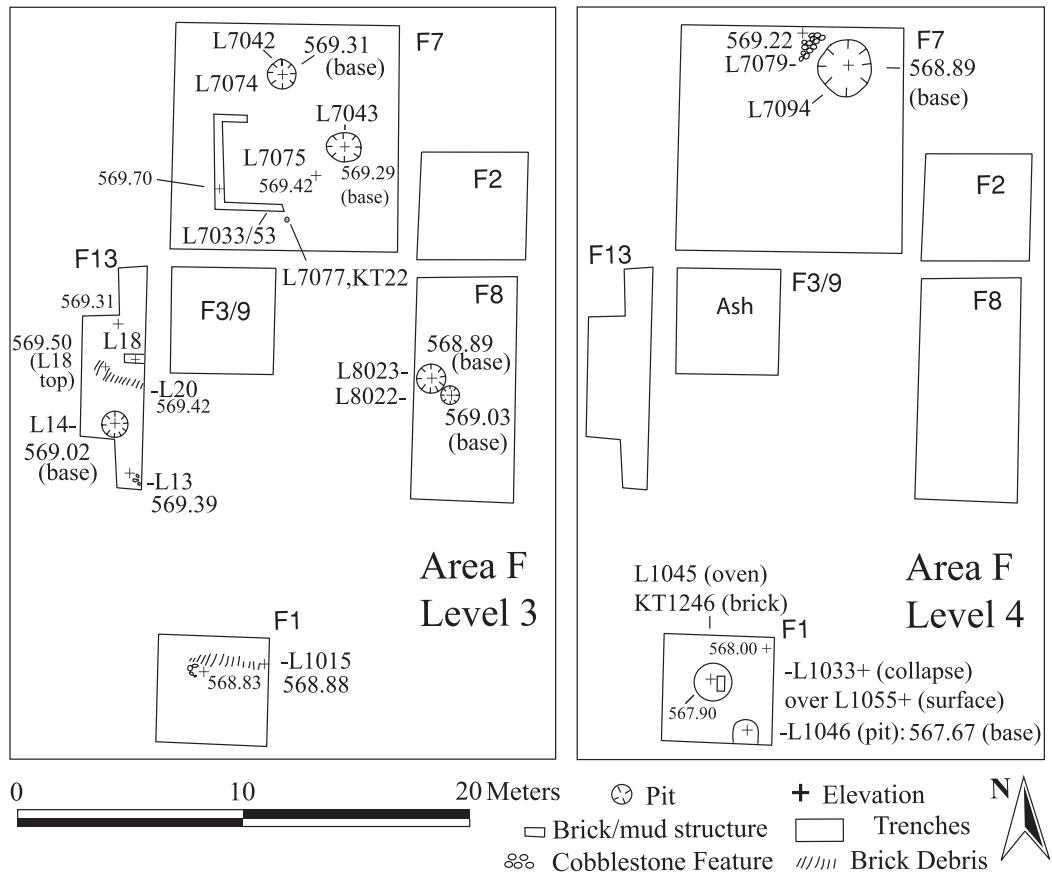


Figure 2. Area F: Levels three and four.

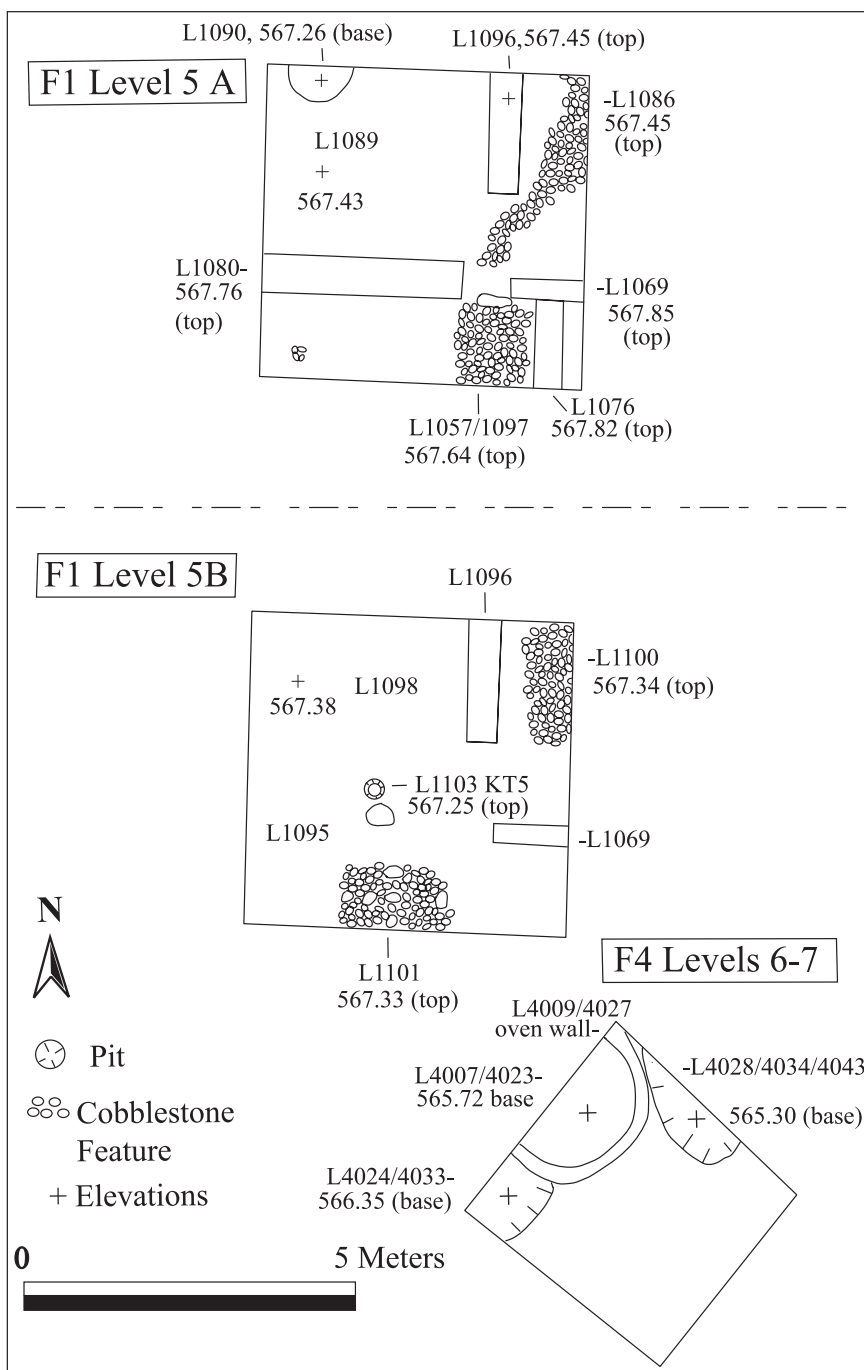


Figure 3. Area F: Levels five, six and seven.

## Figure 4 Descriptions

*All items from Levels two–three. B-F, I-O: Early Bronze Age ware group I. G-H, P: Early Bronze Age ware group III. A is exceptional. Colors listed are Munsell values.*

A: F7.7067.10.3: 10cmd. Exterior surface: 10 YR 3/1 very dark gray. Interior surface: 10 YR 4/1 dark grey. Fabric: 10 YR 3/1 dark grey. No core. No visible temper. Exterior and interior well burnished.

B: F7.7029.7285.1: 12cmd. Exterior surface: 5Y 8/2 pale yellow. Interior surface: 5Y 8/2 pale yellow. Fabric: 5Y 8/2 pale yellow. No core. Fine grit temper (very little). Smoothed exterior.

C: F7.7074.7.1: 13.5cmd. Exterior surface: 5Y 8/2 pale yellow. Interior surface: 5Y 8/2 pale yellow. Fabric: 5Y 8/2 pale yellow. No visible temper (possibly some very fine chaff).

D: F8.8025.8177.7: 7.5cmd. Exterior surface: 5Y 8/2 pale yellow. Interior surface: 5Y 8/2 pale yellow. Fabric: 5Y 8/2 pale yellow. No visible temper.

E: F7.7077.3.1: 4cmd. Exterior surface: 5Y 8/2 pale yellow. Interior surface: greener, like Gley 1 8/1 light greenish grey, but greener. Fabric: 5Y 8/2 pale yellow. Scattered, sand-sized gray grits, probably naturally occurring within clay. Exterior scraped near base. Smoothed exterior.

F: F7.7074.29.1: Exterior surface: green – greener than Gley 1 8/10Y light greenish grey. Interior Surface and fabric: very green, no munsell equivalent. A few dark grits.

G: F7.7069.123.11: 10cmd. Exterior surface: 10 YR 3/1 very dark gray. Interior surface: 7.5YR 5/3 brown. Fabric: Exterior colors grading to thick, grey to black core. Medium chaff temper (medium amounts). Fine grit temper – tiny white specks. Some sand sized inclusions. Exterior well burnished. Upper half of interior surface well burnished. Fine chaff facing. Exterior, inner edge of rim sooted.

H: F2.2007.2039.3: 13cmd. Exterior surface: (dorsal) 7.5YR 6/4 light brown. Interior Surface: (ventral) 2.5Y 3/1 very dark gray to black (sooted). Fabric: 2.5Y 3/1 very dark gray interior half, grading to exterior half of 7.5 YR 6/4 light brown. Medium to fine chaff temper (medium amount). Interior lightly burnished.

I: F7.7069.39.3: 12cmd. Exterior surface: 5Y 8/2 pale yellow. Interior surface: 5Y 8/2 pale yellow. Fabric: 2.5 Y 8/3 pale yellow. No visible temper. Smoothed.

J: F7.7074.71.1: 10cmd. Interior surface: 2.5 Y 7/3 pale yellow. Exterior surface 5Y 8/2 pale yellow. Fabric: 2.5 Y 8/3 pale yellow. Fine grit temper – white and tan bits (medium amount).

K: F8.8025.8184.6: 4cmd. Exterior and interior surface, and fabric: Gley 1 7/5Y (but greener). No visible temper.

L: F8.8005.8051.2: 8cmd. Exterior and interior surface, and fabric: 5Y 8/2 pale yellow. No visible temper. Interior and exterior wet smoothed.

M: F8.8025.8178.4: 9cmd. Exterior surface: 2.5Y 8/2 pale yellow. Interior surface and fabric: 10YR 7/4 very pale brown. No visible temper – possibly some fine chaff. Smoothed.

N: F7.7037.7281.8: 3cmd. Exterior surface: 5 Y 8/2 pale yellow slip/wash. Lower part of exterior surface 7.5 YR 7/4 pink (slip/wash?). Interior Surface and fabric: 10YR 8/3 very pale brown. A few tiny very fine grit inclusions. Exterior smoothed.

O: F7.7068.101.1: approx. 8cmd. Exterior and interior surface, and fabric: deep green, no munsell equivalent. No visible temper. Smoothed interior and exterior.

P: F7.7009.7111.2: About 22cmd. Interior/bottom: black (sooted). Exterior/top 10YR 7/3 very pale brown. Fabric margins 7.5YR 6/4 light brown. Thick dark core. Medium chaff temper (medium amount). Top lumpy, mica shows, smoothed.

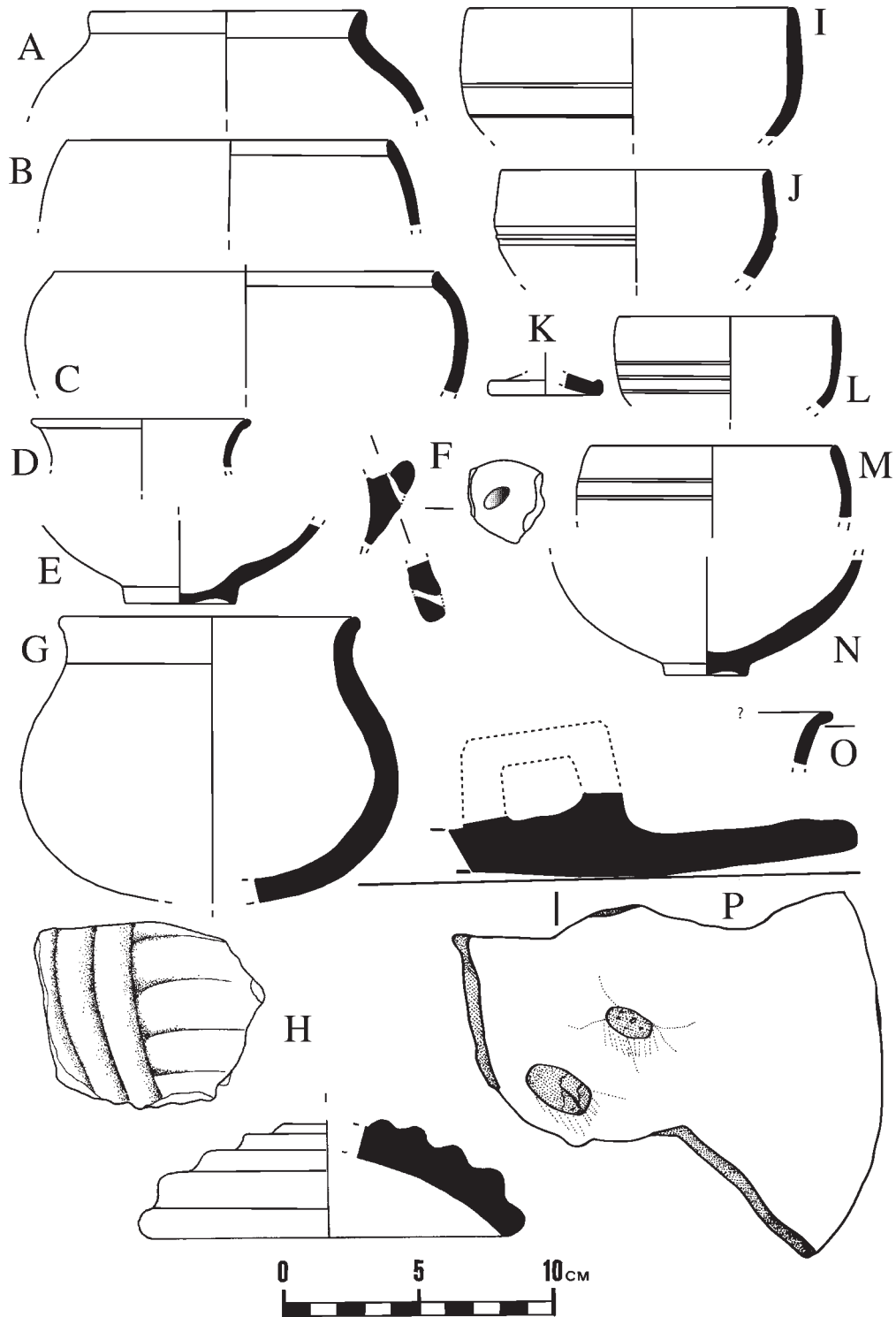


Figure 4



## Figure 5 Descriptions

*All items from levels two–three, except item C, which is level three or four. A-B, D-E, G-J: Early Bronze Age ware group II. F, K: Early Bronze Age ware group III. C: a special case grey ware similar to ware group II. Colors listed are Munsell values.*

A: F8.8024.8163.1: 3.5cmd. Exterior surface and fabric: 10YR 6/4 light yellowish brown grading to mottled, black – grayish brown core of burned out chaff. Fine chaff temper (medium amounts of chaff). Mica (medium amounts). Fine chaff and mica on surface. Smoothed, lightly burnished in places. Pronounced wheel rills on interior.

B: F2.2007.2036.4: 17cmd. Exterior and interior surface, and fabric: 7.5YR 6/4 light brown. Grading to 7.5YR 6/2 pinkish gray core. Fine grit temper (in medium amount), mostly white specks and mica. A few 3mm inclusions. Exterior vertically burnished.

C: F9.9006.9052.2: 1.01cm thick. Exterior and interior surface: 2.5Y 5/1 gray. Fabric: 2.5Y 3/1 very dark grey. No core. Very fine grit temper – white bits (very small amount).

D: F8.8007.8103.7: 0.70cm thick. Exterior and interior surface: 7.5 YR 7/4 pink. Fabric: 7.5YR 6/6 reddish yellow ('orange') grading to a light, thin, 10YR 6/6 light red core. Very fine grit temper – white bits (medium amount).

E: F14.3.1: 12cmd. Exterior surface: 7.5 YR 7/4 pink. Interior surface: 7.5 YR 7/6 reddish yellow. Fabric: 7.5 YR 6/6 reddish yellow. No core. Sand temper (medium amount). including white, grey, brown bits. Exterior vertically burnished. Mica on exterior surface.

F: F7.7067.79.2: cmd – uncertain. Exterior surface: 5 YR 4/2 dark reddish grey. Interior surface: 5 YR 4/3 reddish brown. Fabric: 5 YR 4/6 yellowish red. Medium to fine chaff temper (medium amount). Some fine grit temper (white specks), large sand and 0.3mm pebble inclusions. Neck and interior face of rim burnished (horizontally). Comb-tip impressed area NOT burnished.

G: F13.19.1.1: 14cmd. Exterior and interior surface: 5Y 8/2 pale yellow. Fabric: 5 Y 8/2 pale yellow to Gley 1 8/10Y light greenish gray. No core. Medium to fine chaff (medium amount). Round impressions below bowl are up to 0.34cm deep. Exterior of bowl part is lightly smoothed and lightly burnished in some places.

H: F14.16.4.1: Exterior surface: 7.5YR 6/4 light brown. Interior surface: encrusted. Fabric: 7.5YR 5/3 brown. No core. Fine grit temper (small amount) – grey bits, some mica, some larger inclusions 1.5 – 2mm, some fine chaff. Exterior burnished. Has finger tip impressions around the neck below the pedestaled vessel. Wheelmade.

I: F2.2003.2017.2: 18cmd. Exterior surface: mottled 7.5 YR 6/6 reddish yellow to 2.5 YR 5/6 red. Interior surface and fabric 5 YR 6/6 reddish yellow. Fine chaff temper. Horizontal burnishing around the rim and vertical burnishing down the body of the pot and pedestal.

J: F14.8.53.1: Base 7.39cmd. Exterior and interior surface: 5 YR 6/ 6 reddish yellow. Fabric: 2.5 YR 6/6 light red. No core in top, but there is an abrupt core in the base: 10 YR 7/4 very pale brown. Exterior and interior vertically burnished. Foot thrown and attached separately.

K: F14.16.10.1: Body sherd with round impressions / gouges made in a diagonal direction (not straight into/perpendicular to the vessel wall). Interior surface: 5 YR 5/4 reddish brown. Exterior surface: 5 YR 2.5/2 dark reddish brown. Fabric: interior 1/3: 5 YR 4/6 yellowish red. Fabric: exterior 1/3: 5 YR 2.5/2 dark reddish brown. Grading to barely perceptible, thin, grayish brown core. Fine sand temper (lots) mostly white specks, and fine chaff temper (lots). Fine chaff faced.

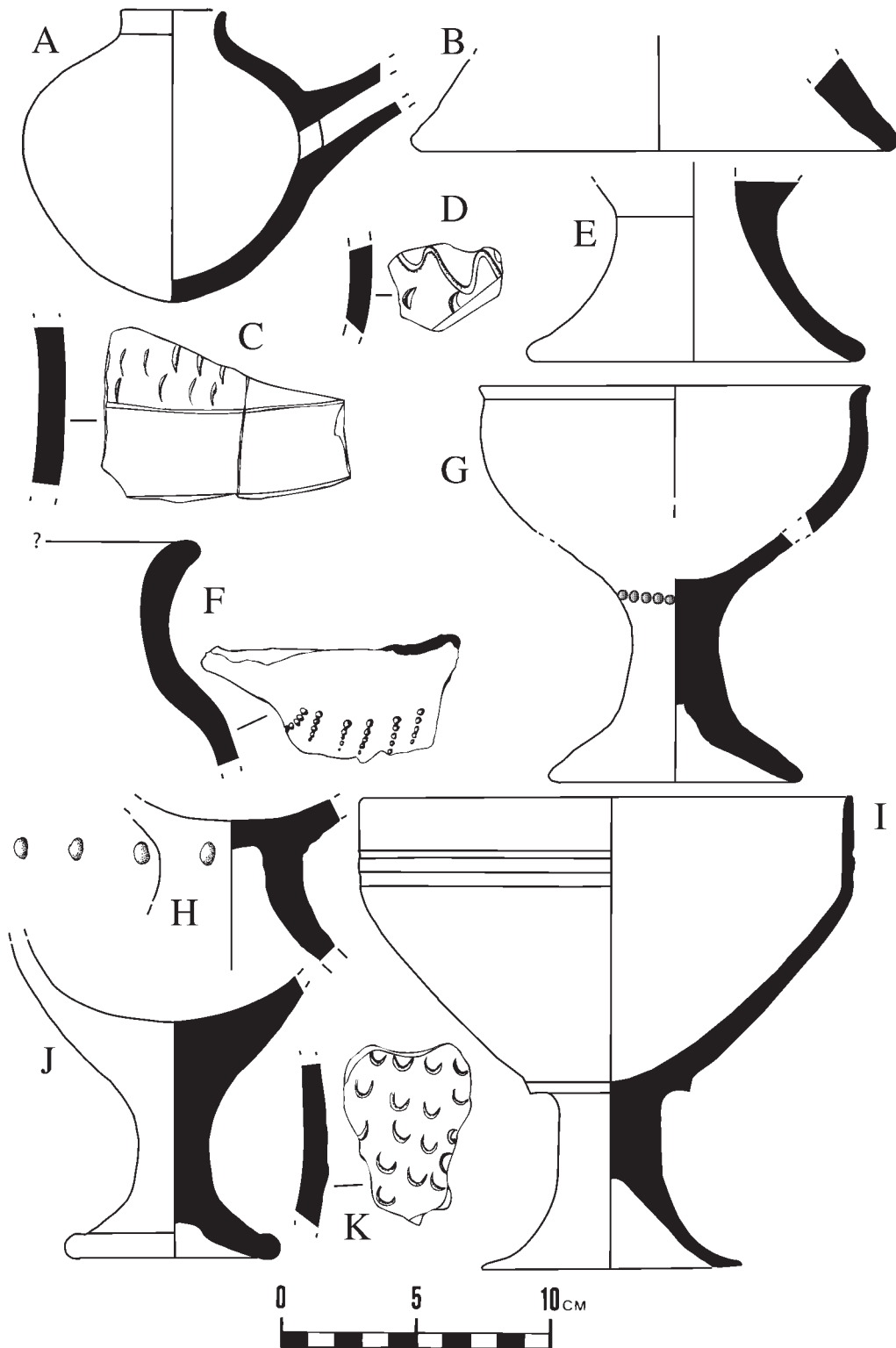


Figure 5

## Figure 6 Descriptions

*All items from levels two–three. All items belong to Early Bronze Age ware group II. Colors listed are Munsell values.*

A: F8.8024.8160.5: 17.5cmd. Exterior surface: 10YR 7/4 very pale brown mottled with 7.5YR 7/4 pink. Interior surface and fabric: 10 YR 7/4 very pale brown. Fine chaff temper (medium amount), some mica visible on interior surface. Exterior burnished. Interior burnished – including very prominent vertical strokes. Wheelmade.

B: F14.8.50.1: 13.5cmd. Interior and exterior surface, and fabric: 5YR 6/6 reddish yellow. Very little visible temper – some fine chaff and grit, mica.

C: F8.8024.8166.1: 13cmd. Exterior and interior surface, and fabric: 5 YR 6/6 reddish yellow. No core. Medium to fine sand temper (and some 2.5mm inclusions), sand clearly visible on exterior surface. lightly burnished on exterior between rim and zig-zag impression.

D: F7.7068.106.1: 17cmd. Exterior surface: 5 YR 6/6 reddish yellow. Interior surface: encrusted but looks like 5 YR 5/4 reddish brown. Fabric: 5 YR 5/6 yellowish red, with abrupt transition to thin, 10YR 6/4 light yellowish brown core. Fine grit temper – white bits (medium amount), and fine chaff temper (small amount). Interior burnished, exterior burnished below design, rim burnished and sooted.

E: F7.7005.7303.3: 2.90 cmd. Exterior surface: 5YR 6/6 reddish yellow. Interior surface: encrusted but probably 5YR 6/4 light reddish brown. Fabric: 5YR 7/6 reddish yellow. No core. Fine chaff temper (medium amount), mica specks in fabric and on exterior, chaff faced. Exterior burnished, Interior encrusted but probably burnished too.

F: F14.16.4.2: Exterior and interior surface: 2.5 YR 6/6 light red. Fabric: 5 YR 6/6 reddish yellow. No core. Fine grit temper (small amount to none).

G: F7.7075.8.4: Exterior and interior surface: 7.5YR 6/4 light brown. Fabric: 7.5 YR 6/6 reddish yellow. No core. Fine chaff and sand temper (medium amounts), some chaff facing. Exterior lightly burnished in places.

H: F7.7074.51.1 / F7.7069.53.5 (mends). 8cmd. Exterior surface: 7.5YR 6/4 light brown. Interior surface and fabric: 5 YR 6/6 reddish yellow. No core. Fine chaff temper (small amount) and mica. Interior, exterior vertically burnished, base also burnished.

I: F14.16.10.3: 9cmd. Exterior and interior surface, fabric: 7.5YR 6/6 reddish yellow. No core. No visible temper but a few white and grey specks. Exterior burnished.

J: F14.3.2.13: 27cmd. Exterior surface: 7.5 YR 6/4 light brown (possibly a slip or wash). Interior surface: 5 YR 6/4 light reddish brown. Fabric: 7.5 YR 4/3 brown. No core. Grit temper (small amt.). a few pieces of grey grit visible in section, some mica on exterior. Interior burnished, exterior smoothed.

K: F2.2003.2014.15: 21cmd. Interior surface: 2.5YR 6/6 light red. Exterior surface: 7.5YR 7/4 pink. Fabric 7.5 YR 6/4 light brown grading to 2.5Y 6/2 light brownish gray core. Fine chaff temper (medium amount), some mica on exterior. Interior and exterior burnished.

L: F2.2003.2014.17: 3.17cmd. Exterior surface: encrusted but probably 2.5YR 5/6 red wash. Interior Surface: 2.5YR 5/6 red wash. Fabric: 5YR 6/6 reddish yellow. Fine chaff temper (medium amount), some mica in section and on interior surfaces. Interior and exterior burnished.

M: F15.7.16.7: 29cmd. Exterior surface: 7.5 YR 7/4 pink. Interior surface: 7.5YR 6/4 light reddish brown. Fabric: 2.5YR 6/6 light red grading to a 10YR 5/2 grayish brown core in some places. Medium chaff temper (medium amounts), with some grey and tan grits. Some chaff facing. Interior and exterior horizontally burnished.

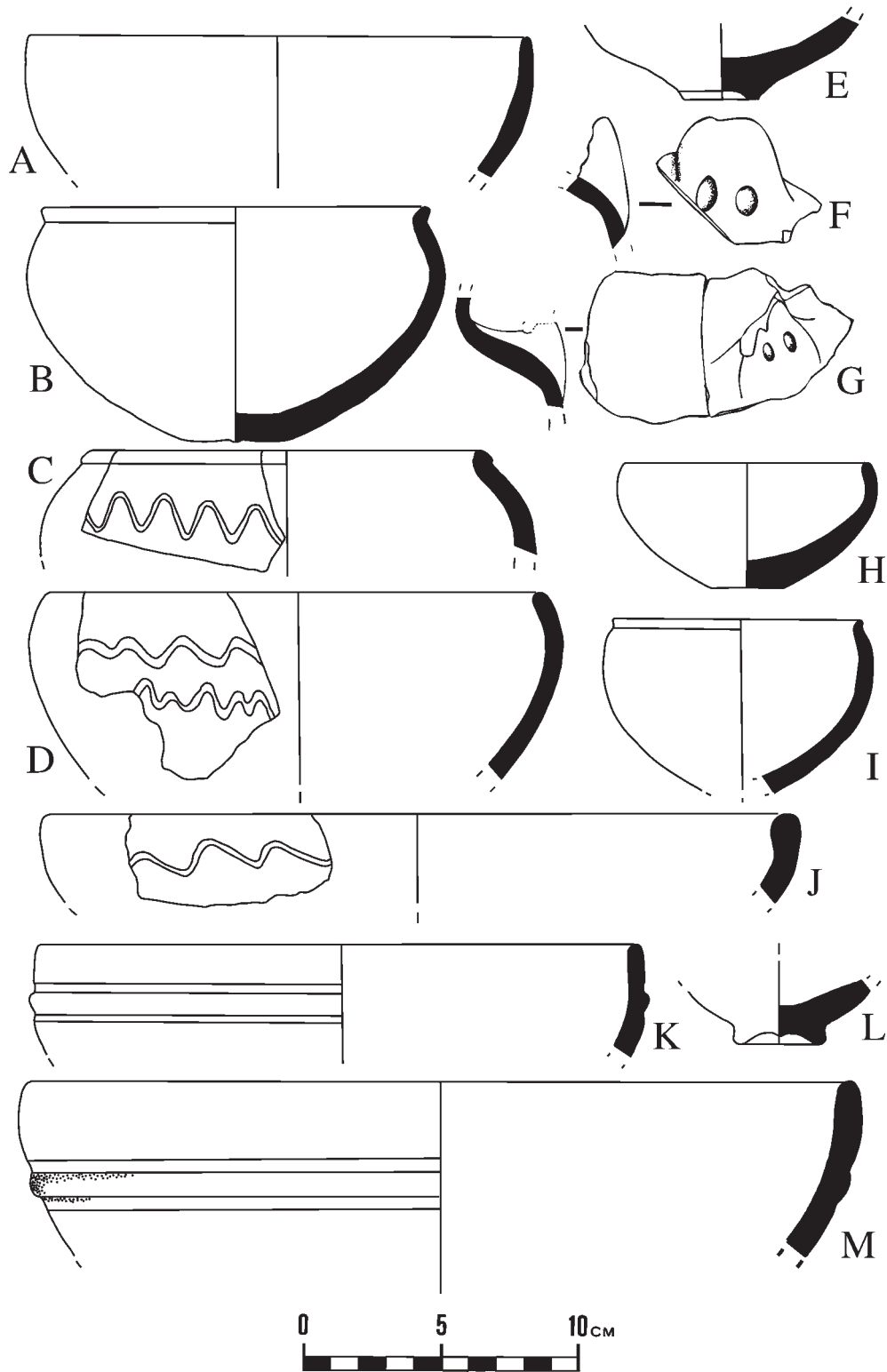


Figure 6

## Figure 7 Descriptions

*Items A-G, I, from levels two–three. Item H probably from level four. Items A,B,C: Transcaucasian or related. D, E, F, I: Early Bronze Age ware group III. G, H: Early Bronze Age ware group II. Colors listed are Munsell values.*

A: F7.7024.7261.1: 16cmd. Exterior surface: 2.5 Y 2.5/1 black. Interior surface: 2.5 YR 4/6 red (mottled). Fabric: interior 1/3: 5 YR 4/6 yellowish red, exterior 1/3: black. Abrupt transition to a 10 YR 4/1 dark gray core. Fine grit temper (lots of sand), mostly white and grey bits with occasional 3-4mm inclusions. Mica visible on interior, exterior. Interior smoothed, exterior and rim burnished.

B: F7.7083.5.6-7: 18cmd. Exterior and interior surface: mottled reddish brown. Fabric: mottled/ uneven, ranging from reddish brown to pale brown. Medium grit and chaff temper, large quartz and lime inclusions. Lightly burnished exterior.

C: F14.8.15.1: 13cmd. Exterior and interior surface, fabric: 5YR 6/4 light reddish brown. Abrupt, thick black core. Medium grit and fine chaff temper. Exterior and parts of interior lightly burnished. Handmade; relatively thin body in places.

D: F8.8010.8131.2: 20cmd. Exterior surface: 10 YR 8/2 very pale brown. Interior surface: 7.5YR 7/2 pinkish grey. Fabric: surface colors are thin margin grading to 2.5Y 5/1 gray core. Fine chaff temper (medium amount), and fine grit temper – white specks (large amount). Fine chaff, lime bits and white grits on exterior surface. Possibly slipped or washed exterior and interior.

E: F7.7024.7250.8: 18cmd. Exterior surface and fabric: 10 YR 7/4 very pale brown. Interior surface encrusted. Grading to 2.5Y 6/3 light yellowish brown core. Fine chaff temper (medium amount), medium grit temper (medium amount), and mica. Mica on exterior surface. Exterior lightly burnished.

F: F7.7009.7111.8: 22cmd. Exterior surface: 10 YR 8/2 very pale yellow, sooted in some places. Interior surface: 10 YR 8/3 very pale brown. Fabric: exterior and interior colors at margins with abrupt change to 2.5YR 5/1 gray core. Fine chaff temper (medium amount) with some white specks. Fine chaff facing, some mica on exterior. Exterior burnished. Probably handmade.

G: F8.8010.8131.1: cmd uncertain. Exterior and interior surface, and fabric: 5YR 7/4 pink. Grading to a 'dirty' or grayish pink core. Fine chaff temper (medium amount) with some white grits. Exterior well burnished.

H: F9.9009.9079.1: Exterior surface: 10YR 5/2 grayish brown to 6/3 pale brown. Interior surface: 10YR 5/2 grayish brown to 6/3 pale brown. Fabric: 10 YR 4/2 dark grayish brown. No core. No visible temper, some mica on exterior. Exterior lightly vertically burnished.

I: F8.8021.8144.7: 22cmd. Exterior surface: 5 YR 5/4 reddish brown. Interior surface: 5 YR 4/4 reddish brown. Fabric: surface color grading to 2.5 Y 5/4 light olive brown core. Sand temper (medium amount). Mica on surface. Exterior well smoothed and burnished.

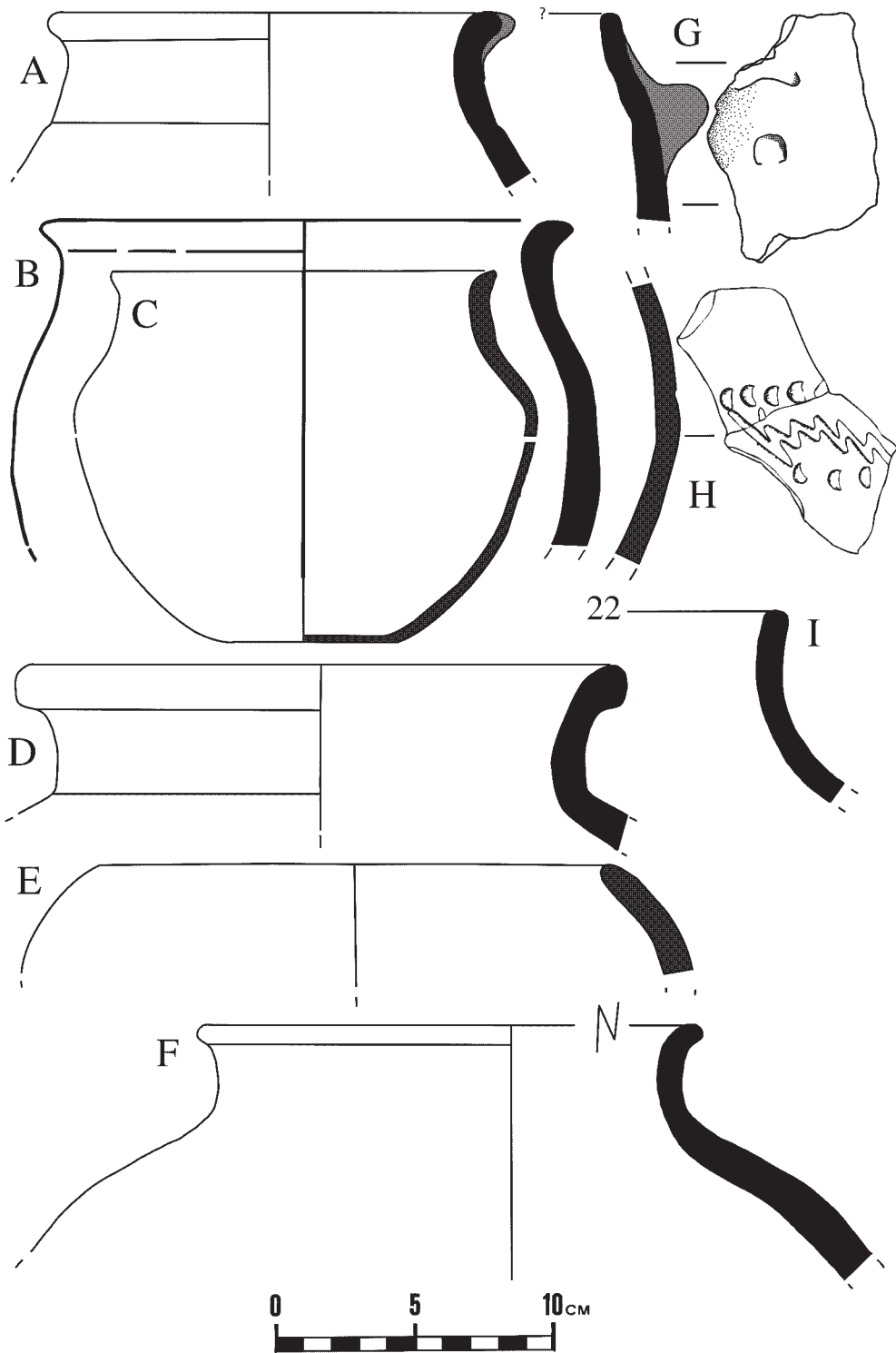


Figure 7



## Figure 8 Descriptions

*All vessels from trench F7 locus 7094 (level four). A, D, E, H, K: Early Bronze Age ware group III. B, C, F, G, L, M, N, O: Early Bronze Age ware group II. I, J: Early Bronze Age ware group I. Colors listed are Munsell values.*

A: F7.7094.35.22: 20cmd. Exterior surface: 5 YR 6/6 reddish yellow. Interior surface: 7.5 YR 6/6 reddish yellow. Fabric: surface colors as thin margins with abrupt transition to thick black core. Medium chaff and grit temper (medium amounts). Grits are mostly white specks. Medium chaff facing, mica and grit on exterior surface. Interior, rim, and neck well burnished horizontally. Shoulder (with fingernail impressions) smoothed before impressions (but not burnished).

B: F7.7094.5.14: probably less than 10cmd. Exterior surface: 7.5YR 7/4 pink. Interior surface: 2.5YR 6/6 light red (may be a slip or wash). Fabric: 2.5YR 7/6 light red. No visible temper but contains some fine chaff and mica on interior and exterior faces. Exterior and interior burnished.

C: F7.7094.5.11: cmd uncertain. Exterior and interior surface, fabric: 5Y 8/2 pale yellow. Fine sand temper (medium amount) with some fine chaff in the form of grey, tan, and white bits.

D: F7.7094.34.8-17: 21cmd. Exterior and interior surface, fabric: 7.5YR 6/4 light brown. Grading to dark grey core. Medium grit/sand and chaff temper (medium amounts) with large pebble inclusions (up to 0.75cm). Exterior partially chaff faced and variably sooted. Rim sooted. Exterior neck, rim, and inside edge of rim burnished. Shoulder decoated with vertical rope impression (from a string-wrapped paddle?) and fingernail impressions. This area was smoothed before the decoration was applied. Lumpy, large inclusions, variable – handmade.

E: F7.7094.5.18: 20cmd. Exterior and interior surface, fabric: 10YR 5/3 brown. Abrupt transition to thick black core. Medium chaff temper (medium amount). Chaff faced.

F: F7.7094.26.13: 13cmd. Interior Surface: encrusted. Exterior Surface: 5 YR 6/4 light reddish brown. Fabric: 7.5 YR 6/4 light brown. Fine chaff temper (small amount). Interior and exterior burnished.

G: F7.7094.34.7: 4.5cmd. Exterior surface: 7.5YR 6/4 light brown. Interior surface: 7.5YR 6/3 light brown. Fabric: Thin 7.5YR 6/4 light brown margins with thick black core (abrupt). Fine Chaff Temper (lots of chaff) with some fine white grits. Fine to medium chaff faced. Lumpy, handmade.

H: F7.7094.37.1: 8cmd. Exterior and interior surface, fabric: 10 YR 7/4 very pale brown, somewhat mottled. Grading to black core. Fine chaff temper (lots of chaff) with some white grits and 0.35cm pebble inclusions. Exterior, interior fine chaff faced, with mica on exterior. Exterior lightly smoothed. Possibly wheelmade or finished (some chaff alignment).

I: F7.7094.41.4: 12cmd. Exterior and interior surface: 2.5 Y 8/2 pale yellow. Fabric: 2.5 Y 7/4 pale yellow. No visible temper.

J: F7.7094.19.5: Exterior and interior surface: Gley 1 8/10Y light greenish grey. Fabric: 5Y 8/2 pale yellow. Fine grit temper – grey specks (medium amount), and some fine chaff temper. Interior and exterior rough, not smoothed, grit visible on surface, some chaff too.

K: F7.7094.38.6: Exterior surface: 5 YR 5/4 reddish brown. Interior surface: 5 YR 3/2 dark reddish brown. Fabric: 5 YR 4/3 reddish brown exterior half, 5 YR 2.5/2 dark reddish brown interior half. Fine sand temper (medium amount). Smoothed, then combed.

L: F7.7094.6.4: Exterior surface: 7.5YR 7/4 pink. Interior surface: encrusted. Fabric: 5 YR 6/6 reddish yellow. No core. Medium chaff and fine grit (white grits and mica) temper (medium amount). Mica on exterior surface.

M: F7.7094.5.1: 15cmd. Exterior and interior surface, fabric: 7.5 YR 6.6 reddish yellow. Fine chaff temper (medium amount). Interior and exterior burnished.

N: F7.7094.6.9: 14cmd. Interior surface and fabric: 5YR 6/6 reddish yellow. Exterior Surface: 7.5 YR 7/4 pink. No core. Fine chaff temper (small amount), with some mica on exterior. Interior and exterior burnished (interior vertically).

O: F7.7094.35.19: 16cmd. Exterior and interior surface, fabric: 2.5YR 6/6-6/8 light red (mottled). Fine grit temper – white and grey bits (medium amount). Exterior vertically burnished.

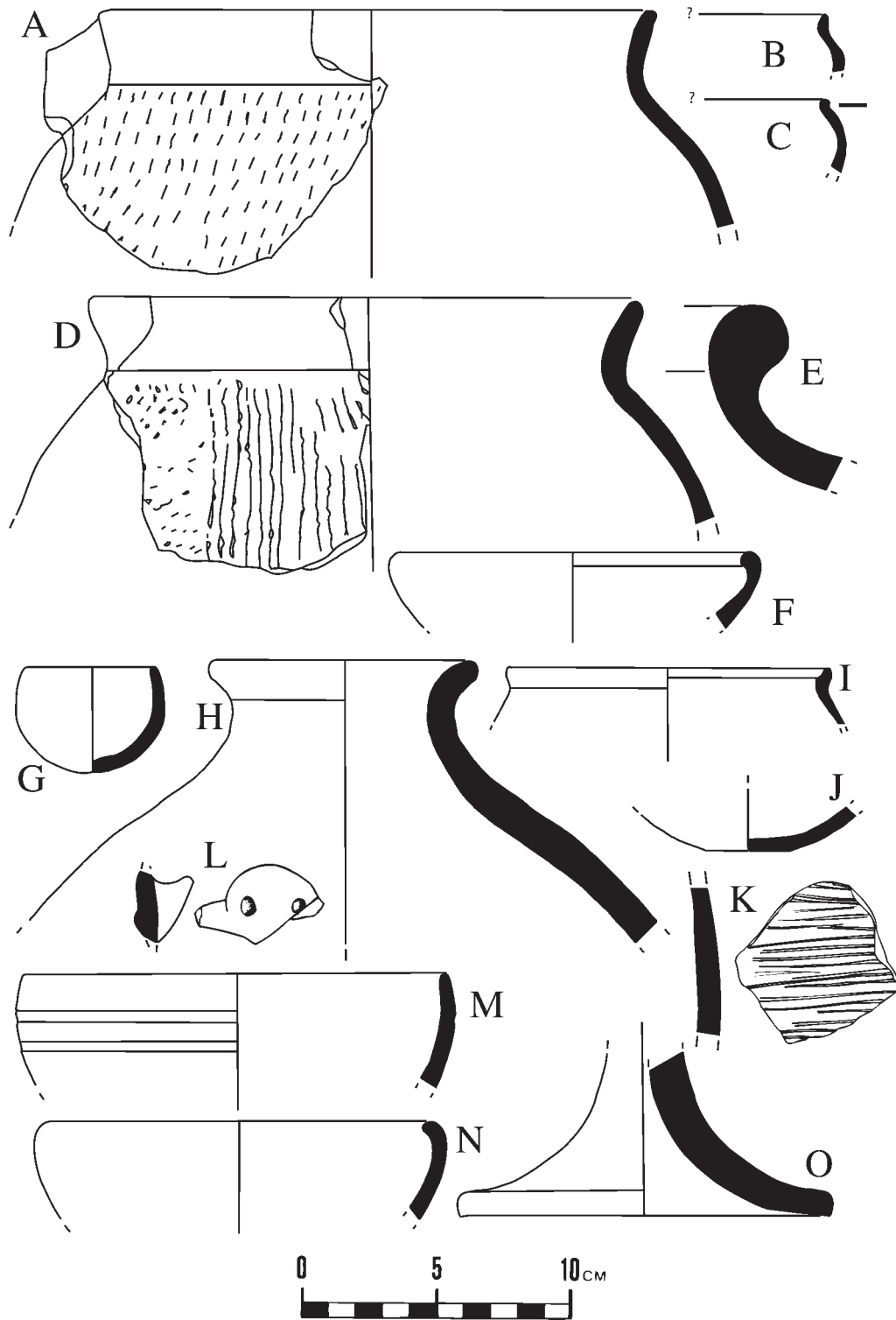


Figure 8

## Figure 9 Descriptions

*Item F: level four. Items A-D, G, J-M: level 5A-5B. Items E, H, I, N-Q: level six. Late Chalcolithic and transitional forms from F1, F4. Items A, H, I, K, L, M, N, P are Late Chalcolithic and transitional ware group I. Items B, C, D, E, F, G, J, O, Q are Late Chalcolithic and transitional ware group II. Colors listed are Munsell values.*

A: F1.1098.9.1: 21cmd. Exterior and interior surface: 10YR 7/3 very pale brown. Fabric: 7.5YR 6/4 light brown margins grading to a 2.5YR 6/3 light yellowish brown core. Very fine grit / no visible temper. Mica visible on interior, exterior surfaces. Wheelmade (striations exterior.)

B: F1.1086.3.2: 17cmd. Exterior and interior surface: 10YR 5/4 to 6/4 yellowish to light yellowish brown. Fabric: 10 YR 4/3 brown grading to thin 2.5Y 6/3 light yellowish brown core. Fine chaff temper in small amounts. Exterior and interior lightly burnished. Probably wheelmade.

C: F1.1085.8.1: 16cmd. Exterior and interior surface, fabric: 7.5YR 6/6 reddish yellow. Interior surface: 7.5YR 6/6 reddish yellow. Grading to a slightly lighter core. Fine chaff temper (medium amount chaff), and chaff faced.

D: F1.1103.4.4: 17cmd. Exterior surface: 7.5YR 7/3 pink (slip or wash). Interior Surface: 7.5YR 7/4 pink mottled to 10YR 5/3 brown. Fabric: 10 YR 5/3 brown. No core. Fine chaff temper (small amount). Wheelmade (striations, rills interior).

E: F4.4020.4018.8: Base 5.5cmd. String cut base. Exterior and interior surface, fabric: 7.5YR 6/4 light brown. Grading to brown and black burned chaff at core. Fine chaff temper, with mica on surface and in fabric. Lightly burnished exterior.

F: F1.1042.1213.7: 4.08cmd. Exterior surface: 7.5YR 7/4 pink. Interior surface: 10 YR 8/4 very pale brown. Fabric: 7.5 YR 6/6 reddish yellow. Medium to fine chaff in small amount. No core. Chaff facing exterior. Interior and exterior and base well burnished.

G: F1.1098.9.2: 12cmd. Exterior surface: 10 YR 5/3 brown. Interior surface: 5YR 5/3 reddish brown. Fabric: exterior or interior color with abrupt transition to black core. Fine chaff temper (small amount), and sand temper (large amount). Exterior and rim burnished, interior lightly burnished. Some sooting on exterior and on rim.

H: F4.4034.4195.1: 7.5 cmd. Exterior surface and fabric: 7.5 YR 6/4 light brown. Interior surface: 5YR 6/4 light reddish brown (pinkish wash?). Grading to 5YR 5/6 yellowish red core. Fine sand temper (medium amount). Wheelmade (striations interior).

I: F4.4023.4171.1/ 4150.2 / 4120.9 / 4170.1 (mends): 18cmd. Exterior and interior surface, fabric: 7.5YR 7/4 pink. Abrupt, thick 2.5YR 6/8 light red core. Tiny white grits (medium amount) and fine chaff (very little) temper. Fast wheel striations.

J: F1.1089.2.5: 8cmd? Exterior surface: 2.5Y 7/4 pale yellow (possibly a wash). Interior surface: 10.5YR 7/4 very pale brown. Fabric: 10YR 6/4 light yellowish brown grading to 7.5YR 6/6 reddish yellow core. Fine chaff and grit (white and grey grits) temper (medium amount). Some fine chaff facing interior and exterior. Exterior lightly burnished. Wheelmade (striations interior).

K: F1.1085.5.8: 10cmd? Exterior and interior surface: 7.5YR 7/4 pink. Fabric: 7.5 YR 6/6 reddish yellow. Very fine grit temper (white specks) in small amounts. Mica on interior and exterior surface. Interior and exterior lightly burnished and smoothed. Wheelmade (striations interior and exterior).

L: F1.1103.4.3: 8cmd? Exterior surface: 5 YR 6/4 light reddish brown. Interior surface and fabric: 5 YR 6/6 reddish yellow. No core. Fine chaff temper (very small amount). Mica on interior, exterior, paste. Probably wheelmade.

M: F1.1075.17.2: 10cmd. Exterior surface: 7.5YR 5/4 brown mottled with 10 YR 6/3 pale brown. Interior surface: 10YR 5/4 yellowish brown. Fabric: 7.5YR 4/4 brown. No core. No visible temper. Mica on interior and exterior surface. Exterior lightly burnished. Interior diagonally burnished.

N: F4.4007.4077.1: 6.5cmd. Exterior and interior surface, fabric: 7.5 YR 6/4 light brown. No core. No visible temper but lots of mica on exterior surface and some white grits too. Wheelmade (interior, exterior striations).

O: F4.4024.4140.5: 9cmd. Exterior surface: 10 YR 7/4 very pale brown. Interior surface: 10 YR 6/6 light brownish yellow. Fabric: 10 YR 7/4 very pale brown grading to thick, black core. Fine chaff temper (lots of chaff). Some mica in fabric and on interior, exterior surface. Some fine chaff facing on interior, exterior. Wheelmade (striations interior).

P: F4.4044.4310.1: 13cmd. Exterior surface: 5YR 6/6 reddish yellow. Interior surface: 10 YR 6/4 light yellowish brown. Fabric: 7.5YR 5/4 brown. No core. Very fine sand temper in medium amounts. Exterior surface has lots of white lime bits that have spalled. Wheelmade (striations interior and exterior).

Q: F4.4034.4248.1: Reserved slip body sherd. Exterior surface: 2.5YR 6/4 light reddish brown. Slip: 2.5Y 8/2 pale brown. Interior surface: 10YR 6/2 light brownish gray. Abrupt thick black core. Fine chaff temper (medium amt. chaff) with white grits. Some chaff facing. Burnished interior. Wheel striations.

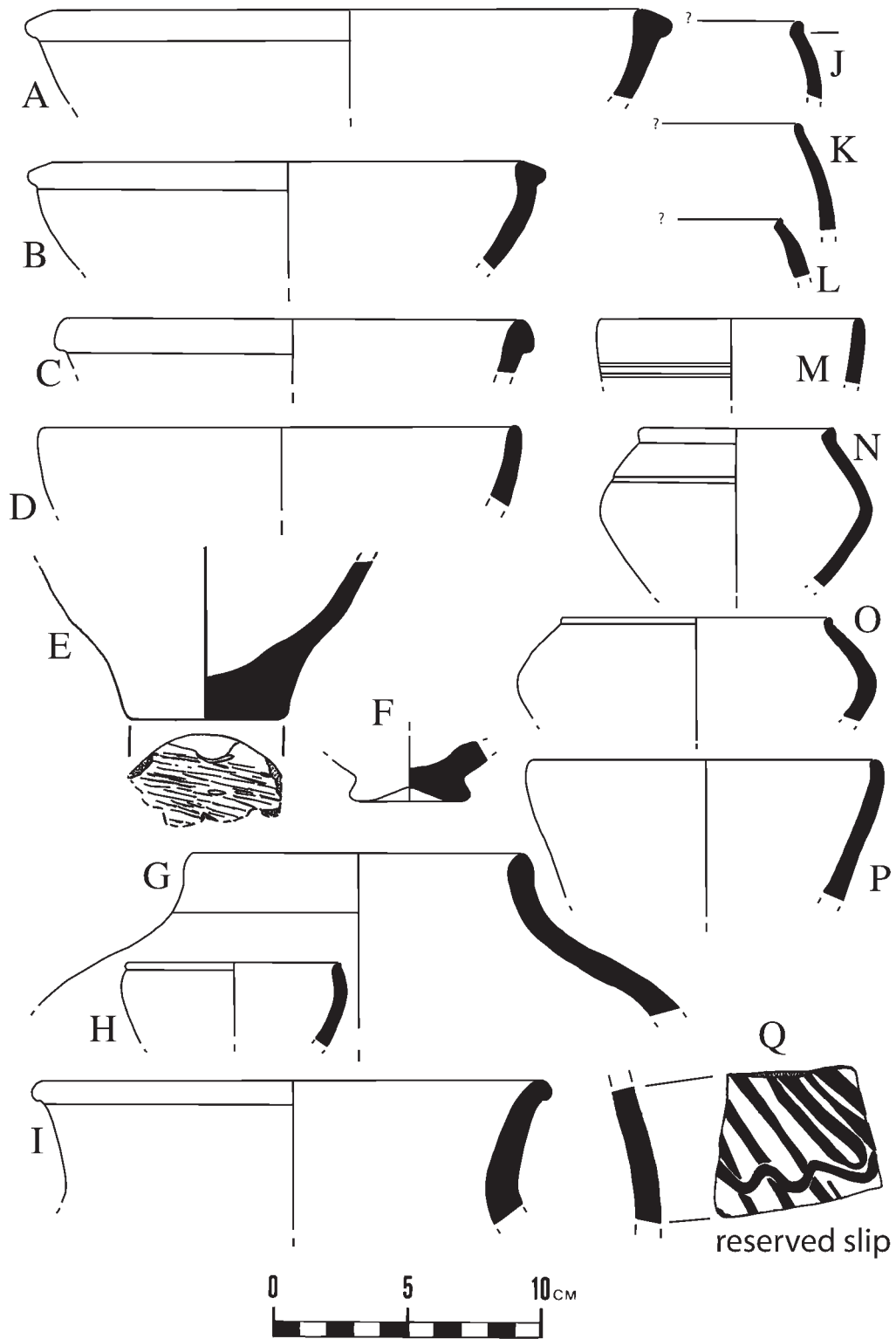


Figure 9

### Figure 10 Descriptions

*Items A-G, I: level six. Item H: not assigned to a level. Late Chalcolithic forms from F4 (one example from G6). Items B, D, F, G, H: Late Chalcolithic and transitional ware group I. Items A, C, E, I: Late Chalcolithic and transitional ware group II. Colors listed are Munsell values.*

A: F4.4021.4022.3: 24cmd. Exterior surface 10 YR 7/4 pink. Interior surface 7.5 YR 7/4. Fabric 10 YR 6/4 light yellowish brown. Grading to 10 YR 4/2 dark grayish brown core. Medium chaff temper. Interior, exterior and rim burnished.

B: F4.4023.4150.4: 42cmd. Exterior surface 2.5 YR 5/6 red. Interior surface 7.5 YR 6/6 to 5 YR 6/6 reddish yellow. Fabric 7.5 YR 5/5 reddish yellow. Grading to 7.5 YR 6/4 light brown core. Little fine chaff, much fine black and white grit. Some chaff facing.

C: F4.4026.4145.1: 34cmd. Exterior surface 7.5 YR 6/4 light brown. Interior surface 10 YR 6/3 pale brown. Fabric 7.5 YR 6/6 reddish yellow. Abrupt very dark gray core. Much medium chaff and some fine grit. Chaff facing. Interior, exterior and rim burnished.

D: F4.4028.4138.1: 21cmd. Exterior surface 7.5 YR 6/4 light brown. Interior surface 2.5 YR 6/3 light reddish brown. Fabric 5 YR 5/6. Grading to 5 YR 4/1 dark reddish brown core. Very little temper: a little fine chaff and grit temper. Some chaff facing. Interior, exterior and rim burnished. Wheelmade (wheel striations on interior).

E: F4.4025.4118.1: Cmd? Exterior surface and fabric 5 YR 6/8 reddish yellow. Interior surface 5 YR 6/6 reddish yellow. Grading to 10 YR 7/3 very pale brown core. Medium chaff temper. Two horizontal incised lines below rim, exterior.

F: F4.4027.4319.1: 16cmd. Exterior and interior surface 5 YR 6/6 reddish yellow. Fabric 5 YR 5/6 yellowish red. Abrupt transition to thin, tan core. Some medium chaff, much very fine chaff and fine grit (sand?) and mica. Interior and exterior vertically burnished.

G: F4.4023.4233.3: Exterior surface 5 YR 5/8 yellowish red. Interior surface 5 YR 6/6 reddish yellow. Fabric 5YR 5/6 yellowish red. Grading to 5 YR 5/8 yellowish red core. Fine chaff with fine sand temper. Incised design; traces of red slip.

H: G6.8.1.5: Cmd uncertain, possibly 14cmd?; Possibly a 'lip spout' or pouring rim. Exterior surface: 5Y 8/2 pale yellow. Interior surface: 2.5Y 7/4 pale yellow (wash). Fabric: 7.5YR 6/6 reddish yellow. No core. Fine chaff temper (small amount). Some chaff on exterior face. Exterior well burnished.

I: F4.4044.4317.1: 27cmd. Exterior surface 5YR 7/4 pink. Interior surface 7.5 YR 7/4 brown. Fabric 5YR 6/8 reddish yellow, with abrupt transition to thick, 5 YR 4/1 gray core. Fine grit and chaff temper. Interior, exterior and rim burnished.

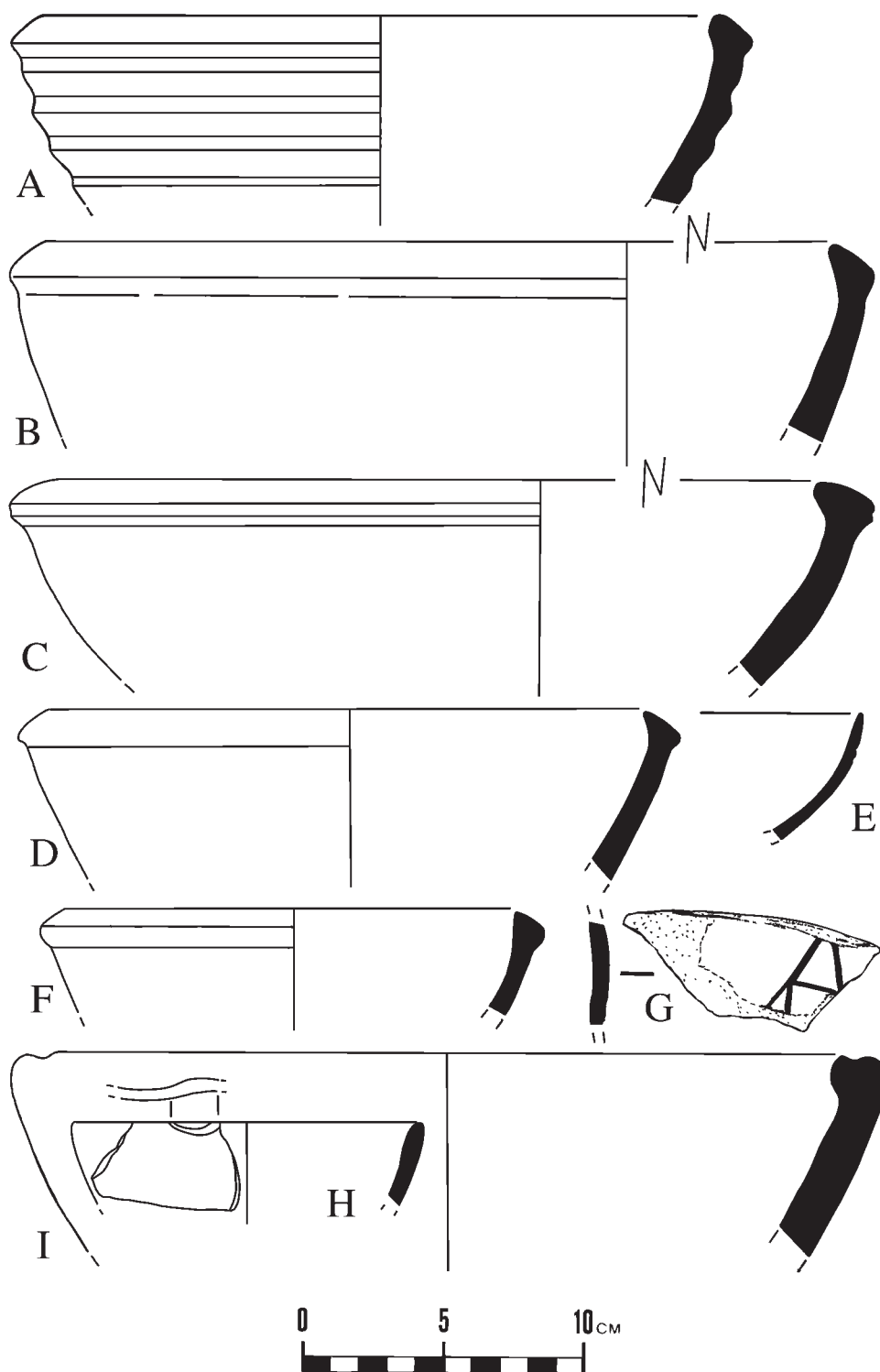


Figure 10

### Figure 11 Descriptions

*Items A-F, H: not assigned to a level, but probably date to level six-seven or earlier. Items G, I, J: level six. Late Chalcolithic forms from trenches F4, F6. Items C, G, I: Late Chalcolithic and transitional ware I. Items A, B, D-F, H: Late Chalcolithic and transitional ware II. Colors listed are Munsell values.*

A: F6.6002.6008.1: 56cmd. Exterior surface 5YR 7/4 pink. Interior surface 7.5 YR 7/4 brown. Fabric 5YR 6/8 reddish yellow, with abrupt transition to thick, 5 YR 4/1 gray core. Fine grit and medium chaff temper. Fine white grits and much fine to medium chaff impressions on surface. Interior, exterior and rim lightly burnished.

B: F6.6009.6031.1: 24cmd. Exterior surface 7.5 YR 2.5/1 brown. Interior surface 7.5 YR 5/6 strong brown. Abrupt, black core. Fine grit (white bits) and chaff temper.

C: F6.6013.6042.5: 16cmd. Exterior and interior surface 5Y 8/2 pale yellow. Fabric 5 Y 8/3 pale yellow. Very fine grit temper.

D: F6.6010.6037.1: 27cmd. Exterior and interior surface, fabric: pale brown. Medium to large chaff temper.

E: F6.6015.6045.8: 22cmd. Exterior surface 7.5 YR 7/6 reddish yellow. Interior surface 7.5 YR 7/4 pink. Fabric 7.5 YR 6/8 reddish yellow. Abrupt 7.5 YR 4/1 dark gray core. Fine chaff temper.

F: F6.6014/5.6045.1: 21cmd. Exterior surface 5 YR 5/3 reddish brown. Interior surface 7.5 YR 6/6 reddish yellow. Fabric 7.5 YR 4/6 strong brown. Abrupt black core. Medium chaff and medium to fine grit (white grits and mica) temper with some gravel. Chaff faced. Rim slightly sooted, self-slipped. Interior and exterior burnished. Handmade.

G: F4.4033.4210.2: 10cmd. Exterior and interior surface 7.5 YR 6/4 light brown. Fine grit temper.

H: F6.6015.6045.3: Cmd? Exterior surface 7.5 YR 6/4 light brown. Interior surface 7.5 YR 4/3 brown. Abrupt, thick 7.5 YR 2.5/1 black core. Fine grit (white bits) and chaff temper.

I: F4.4025.4179.1: 11cmd. Reddish brown fabric, abrupt transition to pale brown core. Reddish-brown paint over cream slip. Fine grit temper.

J: F4.4020.4021.3: 30cmd. Exterior surface 7.5 YR 7/3 pink. Interior surface 7.5 YR 7/4 pink. Fabric 7.5 YR 6/3 light brown. Grading to 10 YR 4/1 dark gray core. Medium chaff temper.



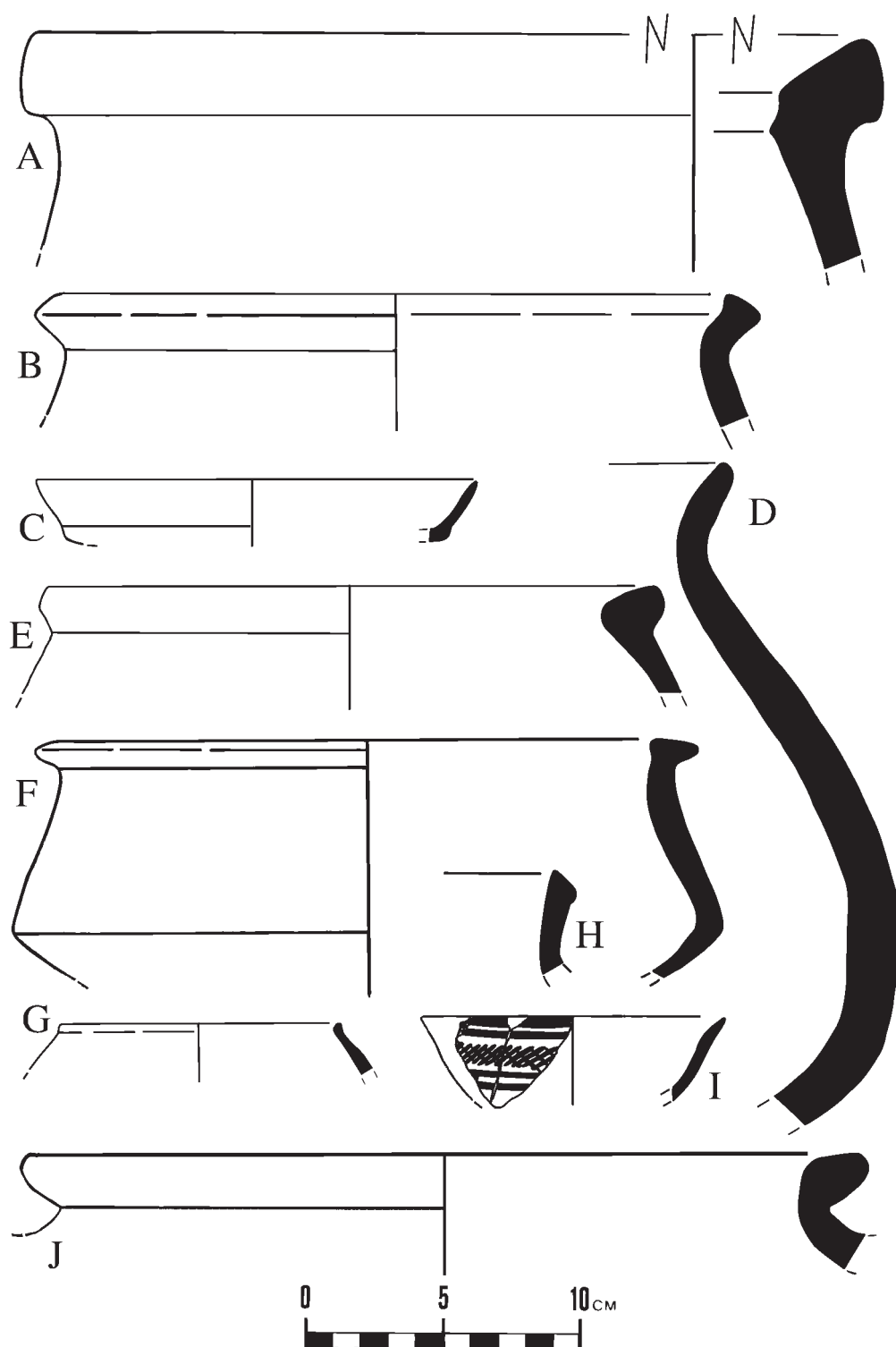


Figure 11

## Figure 12 Descriptions

*Items A-I: not assigned to a level, but probably belong to levels six-seven or earlier. Late Chalcolithic forms from F6. All items Late Chalcolithic ware group II. Colors listed are Munsell values.*

A: F6.6014/5.6045.6: 40cmd. Exterior surface 7.5 YR 6/4 light brown. Interior surface 7.5 YR 4/3 brown. Fabric 7.5 YR 5/6 strong brown. Abrupt transition to 7.5 YR 4/1 dark gray core. Fine to medium chaff temper, white grits, mica. Interior and exterior burnished.

B: F6.6002.6008.2: 34cmd. Exterior surface 5 YR 7/5 pink to reddish yellow. Interior surface and fabric 5 YR 6/4 light reddish brown. Some medium chaff, lots of fine grit temper. Interior and exterior lightly burnished.

C: F6.6012.6040.2: 27cmd. Exterior surface 10YR 6/4 light yellowish brown. Interior surface 10 YR 5/4 yellowish brown. Fabric 10 YR 4/4 dark yellowish brown. Abrupt transition to 10 YR 4/1 dark gray core. Much medium and fine chaff, some grit. Chaff faced. Interior, exterior and rim burnished horizontally.

D: F6.6012.6040.1: 32cmd. Exterior surface 10 YR 7/3 very pale brown. Interior surface 5 YR 7/6 reddish yellow. Fabric 5 YR 6/6 reddish yellow. Grading to 10 YR 4/1 dark gray core. Lots of fine to medium chaff, some white grits. Chaff faced. Interior, exterior and rim burnished.

E: F6.6011.6033.1: 24cmd. Exterior surface 10 YR 5/2 grayish brown. Interior surface 7.5 YR 6/2 pinkish gray. Fabric 7.5 YR 5/4 brown. Grading to 10 YR 5/3 brown core. Much chaff and some fine grit temper (white bits, mica). Wheelmade (striations on interior surface)

F: F6.6014/15.6045.3: 22cmd. Exterior surface 10 YR 7/3 very pale brown. Interior surface 5 YR 7/6 reddish yellow. Fabric 5 YR 6/6 reddish yellow. Grading to 10 YR 4/1 dark gray core. Lots of fine to medium chaff, some white grits. Chaff faced. Interior, exterior and rim burnished.

G: F6.6014/5.6045.9: 21cmd. Exterior surface 10 YR 7/3 very pale brown. Interior surface 5 YR 7/6 reddish yellow. Fabric 5 YR 6/6 reddish yellow. Grading to 10 YR 4/1 dark gray core. Lots of fine to medium chaff, some white grits. Chaff faced. Interior, exterior and rim burnished.

H: F6.6013.6042.2: Cmd? Exterior surface 5 YR 6/6 light reddish brown. Interior surface 5 YR 6/4 reddish yellow. Fabric 7.5 YR 8/6 reddish yellow. Abrupt transition to 2.4 Y 3/1 very dark gray core. Large chaff temper, chaff faced.

I: F6.6013.6042.3: Cmd? Exterior surface 5 YR 6/4 reddish yellow. Interior surface 5 YR 6/6 light reddish brown. Fabric 7.5 YR 6/6 reddish yellow. Abrupt transition to 10 YR 3/1 very dark gray core. Large chaff temper. Interior, exterior and rim burnished.

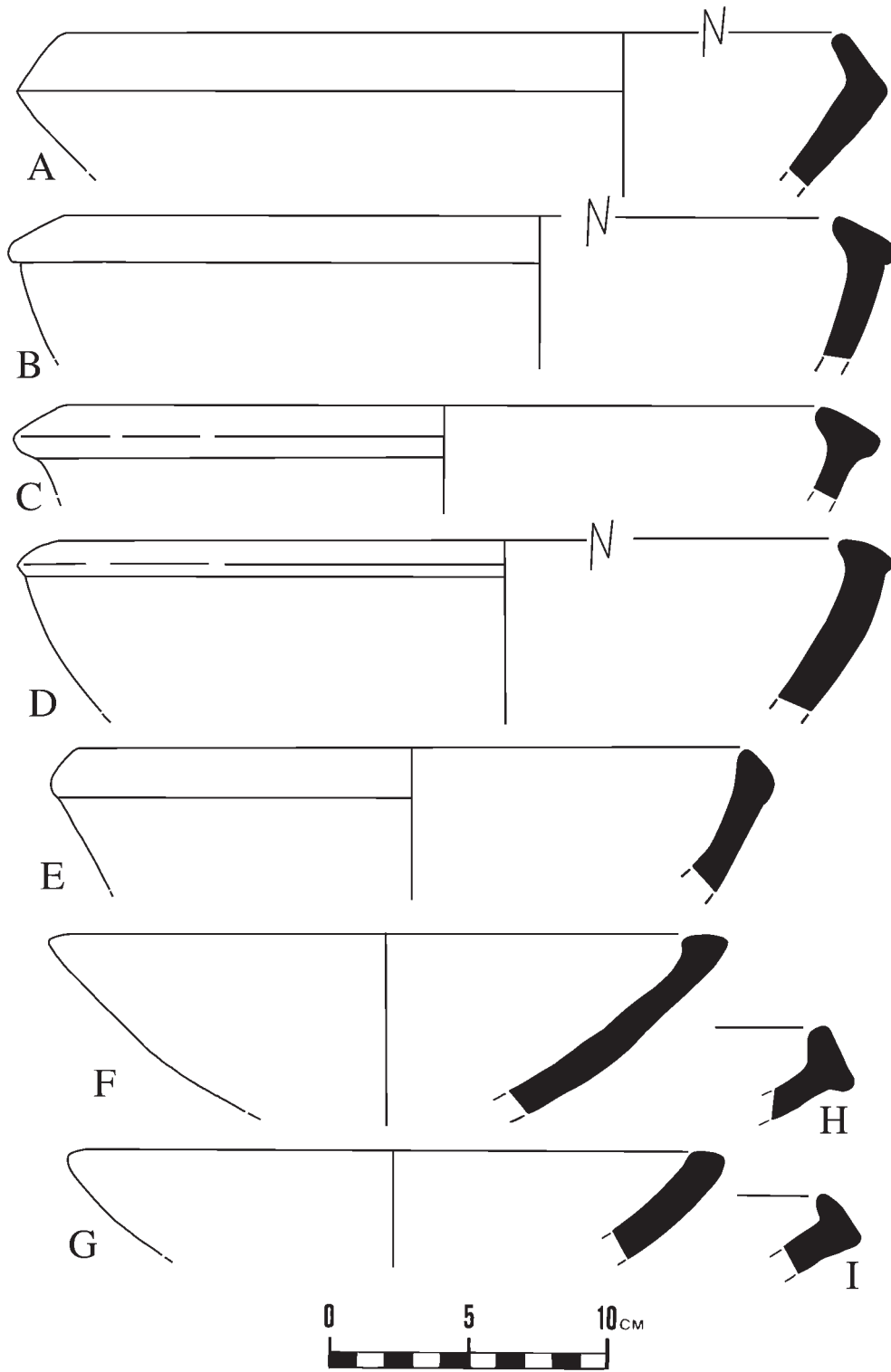
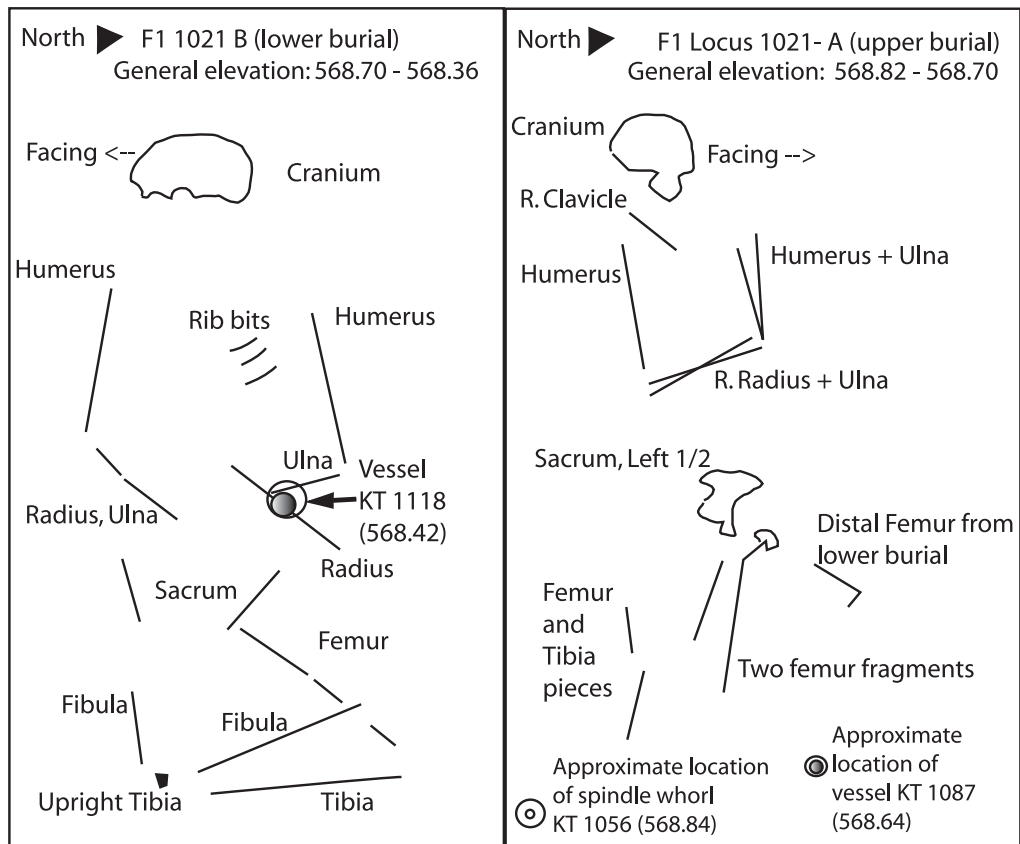


Figure 12



Schematic plan of burials L1011/21A and L1011/21B, showing orientation, position, and location of associated artifacts.

## A CENTURION AND HIS SLAVE. A Latin Epitaph from Western Anatolia in the Rijksmuseum van Oudheden, Leiden

Julian Bennett<sup>1</sup>

### Introduction

Among the items displayed in the Greek and Roman Antiquities section of the Rijksmuseum van Oudheden, Leiden, is a Latin epitaph that was bought in Smyrna (İzmir) in 1889 by a private collector and subsequently acquired on behalf of the museum by Conrad Leemans (Fig. 1).<sup>2</sup> The epitaph is carved on a slab of marbleized limestone with a face measurement of 30 x 32 cm. and an overall thickness of 4 cm. except towards the top, where a cantilevered upper margin 5 cm high terminates in a flat vertical border that is 4.5 cm. thick. The serif lettering used for the text of the epitaph is competently and finely carved, demonstrating a familiarity with the Latin script (although a letter is missing from one word), with characters that vary slightly in height between 2.3-2.4. The text reads:

*Senilis · Q(uinti) · Atti · /*  
*Celeris · (centurionis) leg(ionis) · IIII · /*  
*Scyt<h>icae · servos [.] /*  
*vixit · ann(os) · XX*

In free paraphrase this may be translated as: ‘Senilis, the slave of Quintus Attius Celer, a centurion in the *legio IIII Scythica*: he lived 20 years’. A date for the epitaph in the period c. AD 50-100 is suggested by two items of chronological value: the inclusion in the text of Celer’s full *tri nomina*; and the lavish superscript tails supplied for the ‘Y’ in ‘*Scyticae*’ and the ‘X’ in ‘*vixit*’.

Somewhat surprisingly, this text seems to have escaped notice by those scholars responsible for compiling the standard epigraphic corpora at the turn of the 19<sup>th</sup> and early 20<sup>th</sup> centuries. This lapse is even more extraordinary given that the inscription is noteworthy of wider interest in three specific ways. In the first place, it provides us with the name of a further centurion of the *legio IIII Scythica*, whose origins and period of military service can be established with a fair degree of certainty, thus making it of especial value with regard to the prosopographical record for the officers and men of that unit. Secondly, it supplies us with further textual information concerning slave ownership

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<sup>2</sup> Inv. no. LKA 1153.

among members of the Roman army, a subject that has not received the attention it deserves. Finally, it forms a welcome addition to the limited number of Latin inscriptions recorded from Smyrna – if, that is, it does indeed come from that place. Before going any further, therefore, it is necessary to explore the matter of its original provenance.

### The Epitaph's Provenance

The museum's records regarding the epitaph note that it was one of a group of ten inscriptions originally purchased at Smyrna in 1889 by Alfred Oscar van Lennep (1851-1913), the other nine all being Greek language funerary texts.<sup>3</sup> Alfred was the last active member of what had been a highly successful Dutch mercantile dynasty originally established at Smyrna during the early 18<sup>th</sup> century by his great-grandfather, David George van Lennep.<sup>4</sup> Indeed, by the mid 19<sup>th</sup> century, the Smyrnaean branch of the Van Lennep family controlled one of the leading and richest trading family concerns of both late Ottoman Smyrna and the Levantine World, specialising mainly in silk but also dealing to a large extent in the burgeoning Anatolian opium trade. The family was also active and munificent benefactors to their community: Alfred's own father, Charles David, for example, was highly prominent among those who sponsored and oversaw the construction of the great quay at Smyrna in 1867-75.<sup>5</sup> Consequently it comes as no surprise to learn that the successive heads of the family were customarily made resident Dutch Consul General for Smyrna and Anatolia, even though in Alfred's case he spoke no Dutch at all:<sup>6</sup> one can only assume this was the inevitable result of growing up in a family and society of expatriates who mutually favoured one or more of the usual international *lingua franca* over their own less widely-spoken native tongue.

As was common practice among the European trading community of 19<sup>th</sup> century Anatolia, the Van Lennep family embraced the pastime of antiquities collecting, with the significant difference that those so involved in this activity applied a skilled and critical eye towards the material that passed under their gaze. Indeed, their collection was of sufficient international importance that the Van Lennep name often occurs in the standard

<sup>3</sup> I am indebted to Dr R. Halbertsma, of the Rijksmuseum van Oudheden, Leiden for providing relevant details from the museum's records and for granting permission to publish the inscription. I also thank Professor A.R. Birley, for his valued comments on the text of the epitaph, and for providing many additional references (although he is of course blameless for the contents of this article). In addition, I thank B. Claasz Coockson, J. Morin, and T. Zimmerman, who provided invaluable assistance in certain ancillary but important matters; and J. Roodenberg, for his perceptive suggestions on how to improve the original draft of this article.

<sup>4</sup> The available information on the Smyrnaean branch of the Van Lennep family is somewhat contradictory, and I follow here a genealogy prepared by B. de Diesbach Bellerocche, of Fribourg, with the assistance of the family's present-day descendants in the UK, the USA, and the Netherlands.

<sup>5</sup> For the family's connection with the opium trade: Schmidt 1998, Chapter 4; and for the Smyrna Quay project: Zandi-Sayek 2000.

<sup>6</sup> Cf. Gertrude Bell Archive, letter dated 3 March 1902 ([www.gerty.ncl.ac.uk/letters](http://www.gerty.ncl.ac.uk/letters)): "The Van Lenneps are most kind ... [but] They talk no tongue properly – Greek the best, I expect; English with the funny little clipped intonation of the Levant and French very fluently and uglily [*sic*].... Mr V.L. is Dutch by nationality, but he has never been to Holland, speaks no Dutch among his many languages and sees none of his European cousins."

epigraphic and numismatic publications of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries,<sup>7</sup> and so it was doubtless inevitable that some of their acquisitions, such as the text we are concerned with here, should pass to the Rijksmuseum van Oudheden at Leiden.<sup>8</sup> Unfortunately, however, it seems that some of the family's members were not as careful or as thorough as they perhaps might have been when it came to the matter of establishing an accurate provenance for the items that came into their possession, for it has been shown that the declared original location of some of these artifacts is 'dubious and sometimes definitely incorrect'.<sup>9</sup> Consequently, even though Alfred Oscar at least was generally conscientious in his record keeping regarding an item's provenance,<sup>10</sup> we need to enquire more closely into the apparent provenance of the inscription we are concerned with here.

Such an enquiry must take as its starting point the simple observation that certain of the items in the Van Lennep collection, such as our inscription, were obtained from the local antiquities dealers of their home-town Smyrna. The problem is that by the mid 19<sup>th</sup> century, Smyrna had become "the centre" for the growing Anatolian antiquities trade.<sup>11</sup> One unfortunate result of this development was that the precise origin of many of the objects on sale at Smyrna to western collectors was quite likely to have been either forgotten or even unknown at the time of sale: and it was perhaps inevitable that if a local dealer was even questioned on the matter in such cases, he could quite austere and emphatically name the first place that came to his mind, namely 'Smyrna' or some other site in the general region. Thus one explanation for why the alleged Smyrnaean provenance of some objects in the Van Lennep collection is 'definitely incorrect',<sup>12</sup> and from which it follows that at least certain of the other artifacts they assigned to or bought in Smyrna – such as the epitaph that forms the main subject of this article – may have well have come from somewhere else.

On the other hand, while it is true that the contemporary antiquities trade in Turkey did see some artifacts of exceptional aesthetic and extrinsic value journey travel considerable distances from their findspot to their initial point of sale,<sup>13</sup> it seems inherently unlikely that this was the case with our epitaph. After all, to all intents and purposes this is just yet another everyday inscription from classical Anatolia, albeit in Latin as opposed to the more usual Greek. When we consider that hundreds of such items still litter the classical sites of Anatolia, and that they were even more numerous – and more easily accessible – to those who collected such pieces in the region in the later 19<sup>th</sup>

<sup>7</sup> Pleket 1958, x-xi; and Cross 1996, 188 with n.5.

<sup>8</sup> Cf. Pleket 1958, x-xi, with further references. Not all of the items Van Lennep dispatched to the Rijksmuseum van Oudheden arrived safely at Leiden: see Cross 1996, and Özet 2003, 139-143.

<sup>9</sup> Cf. Pleket 1958, with Woodward 1959, 194.

<sup>10</sup> Pleket 1958, xiii; cf. Cross 1996, 191; and Özet 2003, 140-143.

<sup>11</sup> Cf. Pleket 1958, xiii.

<sup>12</sup> As note 9.

<sup>13</sup> As was the case, for example, with the superlative head of Aphrodite that was found at Satala in Armenia Minor but sold in İstanbul, and which is now in the British Museum: cf. Mitford 1974, especially 236.



century, we can safely assume that our inscription is more likely than not to have come from somewhere in western Anatolia. In which case it is unfortunate that it is carved on a slab of the dark grey marbleized limestone commonly used for funerary memorials in several parts of that region: in other words, without a detailed petrological examination, nothing can be said concerning where it might have been quarried. As a result, although the material used is visually similar to many other lapidary works on display at Smyrna, we must set against this observation the fact that Latin texts form only 5% of the nearly 1,000 or so classical-period inscriptions that are presently known from that place. On balance, therefore, the putative Smyrnaean provenance of this text has to be treated with a certain amount of scepticism, and we will content ourselves here with ascribing its original findspot to 'somewhere in western Anatolia'.

### The Centurion...

The *nomen* and *cognomen* of our centurion suggest that he most probably originated in the Celtic parts of Western Europe. The *nomen* Attius, for example, apparently the Celticised version of an Italian name initially found in Etruria, is well recorded in Cisalpine Gaul and in Gallia Narbonensis.<sup>14</sup> The *cognomen* Celer, for 'quick' or 'nimble', is also especially common in Northern Italy and almost equally so in Iberia, although it occurs less frequently in Gallia Narbonensis.<sup>15</sup> As it is, given the period during which our Celer must have served with the Roman legions, an origin in either Cisalpine Gaul, Gallia Narbonensis, or Iberia, might in any case be expected for him, for prosopographical analysis reveals that until c. AD 100, a majority of Rome's legionary recruits came from those regions.<sup>16</sup> Indeed, the *nomen* Attius is to be found in its greatest concentration among serving legionaries of 1<sup>st</sup> and early 2<sup>nd</sup> century date in the Romanised areas of Celtic Europe. Consider, for example, Moguntiacum (Mainz) in Germania Superior, where we find Q. Attius Rufus of the *legio I Adiutrix*; L. Attius Nepos and C. Attius Maximus of the *III Macedonica*; and Attius Atrectus of the *XXII Primigenia*.<sup>17</sup> Moreover, analysis demonstrates that a large proportion of Celer's broadly contemporary colleagues in the *legio III Scythica* came from either Italy or from the immediately adjacent Romanised parts of Celtic Europe, most of them presumably having worked their way up through the ranks on merit alone.<sup>18</sup> There is, however, only one other record of a legionary with the same *nomen* and *cognomen* as our man, namely the

<sup>14</sup> For Attius as a Romanised version of a 'Celtic' name, and its distribution, cf. Weisberger 1968, 248-249; Dondin-Payre and Raepsaet-Charlier 2001, 359, 361, 409, 418 and 440; Schulze 1904, 68, 228 and 423; and Lörincz and Redö 2005, 90-91, with 299 Atti, 168 from Narbonensis and North Italy.

<sup>15</sup> Kajanto 1965, 248; and Lörincz and Harl 1999, 47, with 158 Celer, 44 from North Italy and 36 from Iberia, but only 11 from Narbonensis.

<sup>16</sup> Mann 1983, 49-51, esp. 50.

<sup>17</sup> Rufus: *CIL* 13.6828; Nepos: *CIL* 13.6853; Maximus: *CIL* 13.11848; Atrectus: *CIL* 13.6994.

<sup>18</sup> Speidel 1998, 165-66, with 171 and 198: but see Bennett, in press, for a centurion of Flavian date in the *III Scythica* who most probably came from Ancyra, and another of the Flavian-Trajanic period who perhaps came from Cappadocian Caesarea.

centurion Attius Celer (*praenomen* unknown), who is reported on a building stone of probable Trajanic date from Deva (Chester) in Britannia, in which case he was most probably serving with the *legio XX Valeria Victrix* at the time<sup>19</sup> In fact, this man could just possibly be the same person as the Attius Celer on the Leiden inscription, for as we have seen, the Leiden text can be dated to the later 1<sup>st</sup> century, and it was not that uncommon for centurions to be transferred from one legion to another.

Whether or not we are dealing with the same two men is not especially relevant here, and in any case, it is impossible to prove one way or the other. On the other hand, if we are to place the Leiden inscription into its wider context, it is important to know something about the whereabouts of the *legio III Scythica* in the period the text belongs to, and fortunately, a variety of inscriptions and literary sources provide us with a wealth of information on this particular matter.<sup>20</sup> Thus, for example, the legion was certainly a part of the Moesian garrison in the 30's, when it was most probably based at Naissus (Niš).<sup>21</sup> It remained there until 56/57, when it was transferred to Syria in response to the developing crisis between Rome and Parthia over the matter of the Armenian succession. By the Flavian period, and probably from as early as 65/66, when the dispute over Armenia was resolved in Rome's favour, the *III Scythica* had established its official headquarters at Zeugma in Syria. Epigraphic and literary sources confirm that Zeugma remained the official headquarters for the legion until at least 249. However, the lack of any evidence for a purpose-built legionary fortress of the usual type at Zeugma itself suggests that many of its members were seconded on detached duty to several other localities. These certainly included the quarries at Arulis, for some detachments were apparently employed on an almost permanent basis there,<sup>22</sup> while others were probably billeted on the local civilian population throughout the region, a common practice in the east.<sup>23</sup> Finally, although not strictly relevant to this discussion, it remains to note that the legion is last heard of at Oresa (Tayibeh) in Syria, in the 390's, presumably having been posted there during the military reforms of Diocletian.

It might seem at first sight from this brief review that the most likely circumstance for Celer's presence in western Anatolia was that he and the *III Scythica* were transported to the region by ship in the initial stage of the unit's transfer from Moesia to the east in 56/57. After all, the Roman army did on occasion move whole armies this way, as was the case with the invasion of Britannia in 43, and so it is perfectly feasible that this may have been the case with a single legion. Indeed, the best explanation for the *legio V*

<sup>19</sup> *RIB* 471.

<sup>20</sup> Speidel 1998, 165-167 (cf. *ibid* 2000, 329-331) and 175-176.

<sup>21</sup> Cf. Mócsy 1974, 44, with further references, although Scupi (Skopje) cannot be excluded.

<sup>22</sup> Cf. Speidel 1998, 168.

<sup>23</sup> The regularity with which the Roman army in the east billeted troops on civilian homes is attested in a sermon on virginity allegedly delivered by Basil of Ancyra: *Liber de Vera Virginitatis Integritate* 700d-701a (= *PG* 30, 669-810). For other literary evidence for the practice, see Lib. *Or.* 47, *De patrociniis* (referring to soldiers billeted in groups of villages in the territory of Antioch) and Veg. *Ep.rei Milit.* 3.8.1 (on how an army unit might be based in an urban centre).

*Macedonica* ‘languishing’ in Pontus in 61/62, at a later stage in Nero’s eastern campaigns, was that it had been directly dispatched there from its permanent home at Oescus (Gigen) on the Middle Danube in Moesia.<sup>24</sup> However, the fact is that when a legion was moved from one base to another, the usual practice was for it to march overland by the shortest route possible. In which case, we might expect that the transfer of the *III Scythica* from Moesia to the east involved an initial march from Naissus to Byzantium via the road that directly connects these two places, and then a second trek along the route across northern Anatolia by way of Ancyra, the usual itinerary taken by those armies travelling to the eastern frontier in the imperial period.<sup>25</sup>

Having effectively excluded the possibility that Celer may have been in western Anatolia in connection with the transfer of the *III Scythica* from Moesia to the east, then his presence there during the second half of the 1<sup>st</sup> century can best be explained in one of two ways. The first is that he was a veteran who was passing through or who had settled thereabouts at the time that his slave Senilis died. Indeed, some might think his ownership of a slave would directly point to such a conclusion, although as will be shown, slave ownership was certainly not incompatible with military status in the imperial Roman army. That aside, it could, of course, be immediately objected that Celer is in any case unlikely to have been a veteran simply because the inscription does not describe him as such. There again, it seems to have been the case that legionary centurions generally held on to their rank in retirement, just as senior officers in the British and American military often do so today. Such might be deduced from the comparatively numerous funerary texts recording men with the rank but who were of such an age at death that makes it highly improbable that they were on active duty at the time. More tellingly, however, there is apparently no single and undisputed example of a tombstone – or any other inscription for that matter – that describes a legionary centurion as a veteran.<sup>26</sup>

Nonetheless, while it has to be conceded that we cannot entirely dismiss the possibility that Celer was in western Anatolia simply because he was a veteran who chose to settle there on retirement, there are good reasons for doubting that this may have been the case. To begin with, it does, on the face of it, seem highly unlikely that a time-served legionary centurion who originally came from the Romanised parts of Celtic Europe should make his home in a predominately Greek-speaking Anatolian *polis* such as Smyrna or its neighbours, even though Roman citizen communities are known to have existed in some urban centres in the region.<sup>27</sup> Indeed, the fact is that as far as it can be

<sup>24</sup> Tac. *Ann.* 15.9 and 26.

<sup>25</sup> See for example those inscriptions recording the march through Ancyra of troops on their way east in 114/115 for Trajan’s Parthian War, and that marking their return on their way west in 117, with Hadrian at their head: Bosch 1967, 122-130, nos. 105 and 106, and 141-147, no. 117.

<sup>26</sup> Cf. Richier 2004, 112. There are, nonetheless, a few rare cases in which retired auxiliary centurions are labeled in this way, as with *IDR* 3/2.366 and 369 = *CIL* 3.1471 and 1472, the tombstones of two different auxiliary centurions describing them as veterans.

<sup>27</sup> E.g., at Smyrna itself: cf. Q. Cassius Saturninus, *Romilia tribus, domo Smyrna*, a centurion of Trajanic date who served in the *III Scythica* and the *V Macedonica*: Speidel 1998, 188-189, no. 44.

demonstrated, those time-served legionaries who did not return to their hometown on leaving their legion chose to settle either at a veteran colony (at least until the early 2<sup>nd</sup> century, when these ceased to be created), or in the informal civil settlement (*canabae legionis*) that so often developed next to the headquarters of the legion they retired from.<sup>28</sup>

Consequently, we should look to the other likely explanation for Celer's presence in western Anatolia, namely that he was there in some official capacity while still on active service. If so, one possibility is that he had been seconded for duty with the appropriate provincial governor, for the legions often supplied centurions for this purpose. But it is clear that in such cases, then where there was no legion stationed in the province itself, as was the situation in all of Rome's western Anatolian territories, the usual practice was to supply a man from the closest available source. For example, when Pliny needed a legionary centurion for policing duty in Byzantium in Pontus and Bithynia, one was seconded from a legion in Moesia Inferior, the nearest province with a legionary garrison.<sup>29</sup> Likewise when the governor of Galatia required assistance of this kind, the men chosen for this duty invariably came from one of the two legions in the adjacent province of Cappadocia.<sup>30</sup>

In other words, we can conclude that Celer was most likely not on detached duty in western Anatolia. If a man of his rank and status was indeed required in the region for some kind of official purpose, then such a person would likely come from the legionary garrison of Moesia Inferior and most certainly not far-off Syria. Therefore, if Celer was in western Anatolia while still on active service, then this is more likely to have been while he was in transit to or from one or another place, most probably in the process of being transferred from one legion to a different one. Indeed, it is exceedingly tempting to muse on the possibility that our Celer was the same man as the centurion of that name who was serving in Deva with the *XX Valeria Victrix* in the Trajanic period, and conclude that he was in western Anatolia on his way to join his new post when Senilis died: if only that could be shown to be so.

### **...and his Slave**

As might be expected, much less can be said about Celer's slave Senilis, except that as was usual for a slave he had a single name, followed on the epitaph by the names of his master in the genitive to show that Senilis 'belonged' to him. Consequently, just as would be the case with a wife or a child, the beginning of the inscription should be read in the sense of 'Senilis, who belongs to Q. Attius Celer', with the word '*servos*' (a common variant of the more correct *servus*) inserted after Celer's name to clarify the precise relationship between the two. Such aside, given that our Senilis was no more than 20 years old at the time of his death, some might think it somewhat odd that he bore a name that at

<sup>28</sup> Cf. Tac. *Ann* 14.27, and Mann 1983, 58-63.

<sup>29</sup> Pliny *Ep.* 10.77.

<sup>30</sup> Bennett, in press.

first sight seems to have been taken from a Latin word meaning ‘old’ or ‘aged’, or even ‘old man’. In fact, while it is true that individual slaves were occasionally named on the basis of some mental ability or disability, or some other highly personal characteristic, the particular name ‘Senilis’ lacks any parallel amongst the 8,579 Latin or Latinised slave names recorded at Rome, the largest single assemblage of such names for the entire Roman Empire.<sup>31</sup>

In which case we might reasonably doubt that the name ‘Senilis’ was intended in an ‘ageist’ sense, and so an alternative explanation should be sought for its origins, most obviously that it is more likely than not to be the Latinisation of an autochthonous name that began with Sen-. This is a nominative prefix found in personal and tribal names and as a toponymic in Celticised Europe,<sup>32</sup> and so it follows that our slave Senilis was quite probably of ‘Celtic’ origin - and indeed our centurion Celer could well have bought him simply because they shared a common homeland, it being a common practice for soldiers to draw their personal slaves from among their own *ethnos*.<sup>33</sup> Yet while slaves were often regarded simply as a piece of property, mere *instrumenti genus vocale*, or ‘talking tools’, in the words of Varro,<sup>34</sup> the existence of this particular funerary text, with its record of Senilis’ name and even his age at death, signifies a certain level of emotional attachment between our centurion and his slave. The epitaph, therefore, demonstrates something for which we have so little evidence in the literary record, the depth of feeling that a member of the Roman legions – a class of men not known for their success at making familial attachments - might feel for his personal slave, his closest daily companion, even though he was a man who came from an entirely different social class altogether.<sup>35</sup>

### Slave Ownership in the Roman Army

Having shown that Celer was most probably still on active service at the time his slave Senilis died, it is logical to complete our discussion of this epitaph with a brief survey of the evidence available for slave-ownership among serving members of the Roman army. This is a subject that has been relatively ignored in studies of the Roman army,<sup>36</sup> although it can be said at the outset that in both the Republican and the Imperial periods, the Roman army was regularly provided with numbers of men (some of them certainly slaves) whose duties were to liberate the soldiers from a wide range of manual tasks while on campaign. These men are referred to in the literature by a variety of names, most usually as *calones* and *lixae*, although the terms *serviti*, *muliones* and *vexillarii* also

<sup>31</sup> Despite the popular belief that all Roman slaves had Greek names, five of the ten most common slave-names at Rome are Latin in origin, while the 8,579 Latin or Latinized slave names from the city comprise 8,579 (32%) of the 28,000 or so total: Solin 1996, 680.

<sup>32</sup> Cf. Holder 1904, cols. 1463-1504; also Weisberger 1968, 116, 179 and 185, and Dondin-Payre and Raepsaet-Charlier 2001, 641, and 645, for its use as a personal name. Lörincz and Harl 2002, 66, show that the prefix Sen- is more common in Belgica and the Germanies, while ‘Latin’ *nomina* with the same root are known: e.g., Schulze 1904, 228, ‘Senilius’.

<sup>33</sup> Speidel 1989, 246.

<sup>34</sup> Varro *Rerum Rustica* 1.17.1.

<sup>35</sup> On the general unsuitability of legionary veterans as family men, see Tac. *Ann.* 14.27.

<sup>36</sup> But note Welwei 1988, 81-112, and Speidel 1989.

occur.<sup>37</sup> Moreover, in addition to these generic names we occasionally find these men referred to by some ostensibly quite specific titles. Thus we find the occasional reference to the *σκενοφόροι* or *skenothorai*, groups of baggage-handlers who were also (it seems) responsible for managing the spare horses and the various beasts of burden found with a campaigning army.<sup>38</sup> Then there were the *ύπασπισται*, or *upaspistai*, the ‘shield-bearers’, who may have also carried and supplied replacement weapons when a unit was involved in battle.<sup>39</sup> Finally there were those men designated as the *galearii*, the ‘helmet-men’,<sup>40</sup> who seem to be expressly associated with auxiliary cavalry troopers, indicating that they probably served as grooms, but who are also to be found in at least one legionary base, where they could have performed the same function with regard to the senior officers of the legion and that legion’s small mounted element.<sup>41</sup>

What is not clear, however, is the precise civic status of any of the individuals and groups of men.<sup>42</sup> On the one hand, it does seem certain that some of them were state-owned slaves, as is most obviously probably so with those named as *serviti*.<sup>43</sup> On the other hand, those groups referred to by the other names may well have been slaves in some cases and state-employed civilians in others, while it seems that these terms might even on occasions be extended to cover simple camp-followers and sutlers. However, as already indicated, there has been hardly any research directed at understanding which of these groups was slave and which were free:<sup>44</sup> but neither, for that matter, has the issue of personal slave ownership by individual full-time members of Rome’s armed forces been examined in any detail, even though there is a comparative abundance of literary and epigraphic evidence on the subject. More to the point, this is a topic that is especially germane to the question of whether or not Celer’s ownership of a slave has any bearing at all on his military status at the time of Senilis’ death.

<sup>37</sup> *Calones*: Livy 23.16.8; Caes *BG* 2.24.2, and *BC* 1.51.6; Tac. *Hist.* 2.87, and 3.33; and Suet. *Galba* 20.2; *lixae*: Livy 23.16.8; Sal. *Jug.* 44.5; Caes *BA* 75.3; Tac. *Ann.* 2.62; Quint. *Inst.* 8.6.42; Suet. *Galba* 20.2; and Speidel 1980 and 1981; *serviti*: Caes *BA* 85.1-2; *muliones*: Caes *BG* 7.54; *vexillarii*: *De Munit. Cast.* 3 and 30 (see Petrikovits 1975, 47, for the interpretation of the term as used in this text to indicate non-military personnel).

<sup>38</sup> E.g., Jos. *BJ* 3.69 and 125, and 5.49; Dio 79.26.5-6.

<sup>39</sup> E.g., Dio 79.26.5-6.

<sup>40</sup> The term *galea* strictly means a helmet made of leather (cf. Isid. *Etym.* 18.14, with 19.21.3 and 30.5), but was presumably used for a helmet made of any type of material.

<sup>41</sup> E.g., Veg. *De Rei Milit.* 1.10 and 3.6; and Bagnall 1976, 17-18, with no. 18, 58-59; also Fink 1971, no. 9.4, 106-114, a ‘duty roster’ of the *legio III Cyrenaicia* in Egypt, dated to c. 90-96, which refers to a legionary whose duties included supervising the *galeariato*: the logical interpretation of the term is ‘the place of the *galearii*’, rather than the alternative ‘the place where the helmets were kept’, as legionaries (and auxiliaries) kept their field and parade kit with them: hence the *arma* or weapons store to be found in each troop section of a Roman army barrack block.

<sup>42</sup> Cf. Petrikovits 1975, 57-58.

<sup>43</sup> Cf. the group of slaves that Hadrian received while in Cappadocia in 129 for allocation ‘to the camps’ (*a Cappadociubus servitia castris profutura suscepit*: *HA Had.* 13.7). These men were quite probably provided for serving the needs of the Roman army in that province, but it cannot be excluded that they were freed for direct enlistment into the *auxilia* to make up for a shortage of free-born volunteers: cf. the discussion in Bennett 2002, 306.

<sup>44</sup> Cf. note 35, above.



To begin with, it can be at once stated how contemporary legal texts demonstrate that the private ownership of slaves by serving members of the Roman army was not an uncommon practice. The *Digest*, for example, reports in one place a mid-2<sup>nd</sup> century decision that a soldier could have slaves as part of his *peculium*, his personal property.<sup>45</sup> The *Codex*, on the other hand, reports a law of Constantine of the year 326 stating that a cavalry recruit who supplied his own horse and slave (*servos*) should be immediately be promoted to the rank of *circitor* (patrol officer),<sup>46</sup> presumably as a reward for relieving the state from the obligation of having to supply him with a state-owned slave to serve as his groom. The *Codex* also supplies us with an edict of Theodosius, Honorius and Arcadius, dating to 406, and allowing slaves to volunteer for the army in return for their freedom and a financial reward for their masters, and which seems to have been especially aimed at those soldiers with personal slaves (*servi*) on the grounds that these men were already familiar with army life and the nature of warfare.<sup>47</sup> Indeed, personal slave ownership by members of the military evidently continued at least until the end of the 6<sup>th</sup> century: a military treatise of that date notes how those soldiers who could not afford their own slaves should be provided with these by the state, at the rate of one for every three or four soldiers.<sup>48</sup>

These legal and associated texts aside, epigraphy provides us with several examples of men in military service with personal ‘servants’ who were either certainly or probably of slave status. As it is, many of the proven cases are associated with auxiliary cavalrymen and the like, such as the slave Cronio, manumitted in the will of Antonius Silvanus of the *ala I Thracum Mauretana* in Aegyptus; the slave Victor, dignified in death with a tombstone erected by the trooper Numerianus of the *cohors I Asturum* in Britannia; and the 17 year old *servus* Privatus, whose death at Apamea in Syria was commemorated by the *eques singularis* Ulpus Verecundus.<sup>49</sup> It seems reasonable to assume from their owner’s service status that these particular slaves were most likely employed as grooms. Indeed, there is a well-known series of figured tombstones for deceased Roman cavalrymen that show the dead man at rest or in battle, and with one or sometimes more attendants who can almost certainly be identified in this way because they are either holding his horse, or wearing or carrying his helmet (cf. the *galearii* reported above), or holding two or more spears or other weapons or even shields.<sup>50</sup> True, it has to be admitted that the precise status of the ‘attendants’ on these tombstones cannot be determined – except, that is, in a single case. This is the funerary text of the *eques singularis* M. Ulpus Maturis, who manumitted his two slaves Aelius and Quarto at the

<sup>45</sup> *Dig.* 49.17.6 (Ulpian).

<sup>46</sup> *Cod. Theod.* 7.22.2.2.

<sup>47</sup> *Cod. Theod.* 7.13.16.

<sup>48</sup> *Maur. Strat.* 1.2.70.

<sup>49</sup> Cronio: Riccobono 1943, 47; Victor: *RIB* 1064; Privatus: Speidel 1994, 375. For other cases associated with the *equites singulares Augusti*, cf. Speidel and Panciera 1989, 119-126.

<sup>50</sup> E.g., for *auxilia*: Galsterer 1975, nos. 246, 247, 253, 255, 256, and Selzer 1988, nos. 74, 86, 87, 88, 89, 91; and for the *equites singulares Augusti*: Speidel 1994, nos. 80, 83, 86.



time of his death, and whose memorial directly associates the name ‘Quarto’ with one of the attendants shown thereon.<sup>51</sup>

As might be expected, however, slave ownership by full-time serving members of the Roman military is best attested among those who had reached a higher-paid rank, akin to a section or company officer in a modern army, or who served in the ranks of the better-remunerated Urban Cohorts at Rome and the Praetorian Guard. After all, not only did these men have the disposable income to indulge in such luxuries in the first place, but they also had the spare cash to commemorate their slaves on their death if they so wished. That said, in some cases we actually learn of the facts of such slave ownership from monuments erected by the slaves themselves after manumission, while the literary record also provides the odd example. Sources of evidence apart, we might simply note here the two slaves owned by a centurion of an auxiliary cohort in Judaea;<sup>52</sup> the *optio* of the *legio IIII Flavia* who memorialized his freedman, a silversmith;<sup>53</sup> a centurion with the *legio XV Apollinaris* whose death was marked by an inscription erected by his freedman,<sup>54</sup> and one of the *legio V Macedonica*, similarly honoured by two of his;<sup>55</sup> and that centurion of the *legio IIII Flavia* who owned a minimum of nine slaves at the time of his death.<sup>56</sup> Several similar examples can be provided from among serving members of the Roman navy and, of course, amongst members of the Urban Cohorts and the Praetorian Guard.<sup>57</sup> However, all in all, the examples quoted make it abundantly clear that Celer’s ownership of a personal slave is most certainly not incompatible with his inferred military status at the time of his slave’s death.<sup>58</sup>

<sup>51</sup> *CIL* 6.3304 = Speidel 1994, 115-116.

<sup>52</sup> *Act. Apost.* 10.7.

<sup>53</sup> *CIL* 3.1652.

<sup>54</sup> French and Summerly 1987, 18-21, no. 3.

<sup>55</sup> Mitford 1988, no. 12, 176-178, with Strobel 1990, 39-42.

<sup>56</sup> *CIL* 3.8143.

<sup>57</sup> Examples in the navy are provided by Starr 1960, 82, with *CIL* 10.3354, 3355, 3401 and 3577. For examples among the Urban Cohorts, see Freis 1967, 52, with *CIL* 5.2388; and 6.2880 (= 2115), 2907 (= *ILS* 2110), 2935, and 2936; and 8.5230. And for examples among the Praetorian Guard, Durry 1938, 281 (noting that simple soldiers had one slave, while junior officers had two or more), with *CIL* 6.2532, 2634, 2656, 2726, 2743, 32664, and 32709.

<sup>58</sup> For other cases in which, as with Celer, the exact service status of a military slave-owner is not always clear see, e.g., *CIL* 13.11836; *SEG* 32.1276, and *SEG* 33.1188.

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Figure 1. Inscription no. LKA 1153  
at the Rijksmuseum van Oudheden, Leiden  
(Drawing/Photo by B.Claasz Cookson)

## **BEYCE SULTAN – A FORTIFIED SETTLEMENT IN BYZANTINE PHRYGIA**

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### **THE EXCAVATIONS 1954-55**

During the seasons 1954, 1955, at the beginning of the excavations at Beyce Sultan, the remains of a Mid Byzantine settlement were discovered immediately below the surface of the large Bronze Age mound. Notice of this discovery was communicated by the excavators in their first preliminary report (A. St 5 1955 pp. 39-92 at pp. 9-10); and recently some cursory account has been provided of the finds from these levels (the architectural stones A. St 47 1997 pp. 177-93; the metal objects, A. St 50 2000 pp. 159-70). However the geographical location of the site together with the nature of the settlement confers a more ecumenical interest in the unlooked for discovery of 50 years ago. Beyce Sultan is situated in southern Phrygia at the heart of Western Turkey. It lies on the headwaters (or tributary head waters) of the Meander River, and thus by a principal east-west communication route across Turkey. The chronology of the finds recovered in 1954-55 extends from the Early Byzantine to the Middle Byzantine Period (ca. 6<sup>th</sup>–12<sup>th</sup> century AD). The remains of the Byzantine settlement at Beyce Sultan thus provide information concerning a factor of world history – the Islamising of Turkey (figs 1, 2, 3).

First due admission is made of the limitation of the record. The British Excavations were directed towards investigating the massive Bronze Age remains revealed by the surface pottery to exist at the site – and thereby to provide a complementary picture to that available for Eastern Turkey from the sustained excavation of Hittite sites. With this interest the Byzantine levels were not investigated stratigraphically as a part of the excavation programme. So it was that only the salient finds were drawn and photographed. Nevertheless with all these reservations a considerable amount of information was recovered. A well organised expedition was in the field for several months each season, comprehending a large work force and experienced archaeological direction. It is only just to put to the best advantage its findings – otherwise to some degree wasted effort.

The essential facts concerning the Byzantine settlements on the Bronze Age mound of Beyce Sultan revealed by the excavations are as follows:

Mid Byzantine habitation remains were encountered immediately below the modern surface level in the first areas to be excavated on the Western Summit. In the light of this slight ridges or scarp lines could be discerned at or about the limits of the summit area, sufficiently well defined to be marked on the plan. They were absolutely straight (thus not entirely conformable to the contour lines) and occurred on the four sides

of the summit area. Thus they were taken to mark the enceinte walls of the Byzantine settlement. These indications in plan showed that the enceinte so delimited was accurately laid out as a square, with sides ca 150 m in length, and thus enclosing an area of ca 2 hectares. The orientation was obviously predetermined by the conformation of the mound and its summit. Accordingly it was disposed more or less parallel to the line of a country road which, after fording an old tributary of the Meander nearby to the South, traversed the saddle back of the mound between its twin summits. Clearly the principal entry to the settlement was from the East by way of this road, which mounted at its crest to within about 5 or 6 metres of the summit level. From this road an approach way of some 60 metres would have led up to a gate in the East-West wall of the settlement (fig 4).

Further information regarding the settlement was revealed in section as the excavations were carried down through it to encounter the Late Bronze Age remains immediately below. Although the Byzantine remains were not drawn in detail in the published section, the excavation shows that these remains comprised three principal building levels conformably succeeding one another. Also the excavations indicated that the city wall (as marked by surface indications) was of massive construction, comprising a main wall ca 3m thick of boulder facing and rubble fill, together with an apron extending outwards a further 3m. It is, of course, possible that the superstructure of this wall was of mud brick (fig 5). The other (eastern) summit was not built over in Byzantine times, but was used a cemetery for simple inhumation burials, the graves in general being defined with Byzantine building refuse, e.g. tiles, broken stones etc.

Additionally to the foregoing considerable information of another type came to hand during the excavations. This consisted of quite notable finds – surface finds and also finds made in area excavations. These finds comprised in the first instance numerous architectural fragments of finely dressed stone, moulded and with carved decoration – but all without significant context (figs 7-17). Also there was a striking collection of bronze objects which exceptionally came from a closed deposit in a house belonging to the second Byzantine building level (figs 18, 19). Finally a considerable quantity of glazed pottery littered the surface of the mound and emerged from the excavations (fig 20). These finds in their ensemble when subject to analysis had much to say concerning the possible chronology of the settlement – not all of which was evident from the clearances on the ground.

#### THE RECORDED FINDS

##### **Architectural fragments**

Obviously the most salient evidence of Byzantine occupation on or about the Bronze Age mound of Beyce Sultan was the presence of dressed and ornamented masonry blocks. Following on the yield of such blocks from the excavations of 1954-55 it was possible to discuss the nature of the building(s) from which they came (v A. St XLVII 1997 pp. 177-93). Yet it must be emphasized that, in spite of the extensive and widespread areas of excavation, not one finely dressed block of Byzantine date was

discovered *in situ*. Thus it remains logically possible that all these blocks originated elsewhere and were brought to the mound for one reason or another at one time or another.

In short, pushing things to the extreme, it is possible that these finely dressed blocks from Byzantine monumental building have virtually nothing to say regarding the chronology of Byzantine habitation immediately below the surface of the mound.

On the other hand, accepting the general tenor of the evidence, these blocks of monumental masonry present on the mound of Beyce Sultan, by their nature, pose problems in establishing the chronology of the Byzantine occupation. The gist of the problem is that the blocks appear to date from two widely separate periods of time – and it is difficult to envisage the habitation remains on the summit of the mound encompassing such an extended time range. The question precedent here is thus the dating of individual blocks of masonry divorced from the structure to which they belonged.

A previous effort has been made to separate the Byzantine architectural fragments found at Beyce Sultan into two chronologically distinct groups, and this enquiry can be referred to for detailed analysis (v A. St XLVII, 1997 pp. 177-93). Here only summary conclusions are presented, together with previously unpublished photographs which afford an improved documentation.

In spite of difficulties arising out of Byzantine Art History, it is possible to recognise that two epochs are represented in these blocks – although this is not to assert that in every instance it is certain to which epoch the block belongs. However joint application of the following three criteria generally points to one group or the other:

- (1) Style – both motifs and execution (e.g. surviving traces of classical mouldings and ornament as opposed to their complete absence).
- (2) Function – where the structural function of a block can be identified, then it may be possible to ascribe its origin to a building of an architectural type proper to one epoch or the other (e.g. a block may be recognised as belonging to a low chancel screen or to a high iconostasis/*templon*).
- (3) Material – the stone employed may be marble or crystalline lime-stone on the one hand, or coarse grained limestone on the other.

Considered on this basis there can be little doubt that the Byzantine architectural fragments from Beyce Sultan include blocks from the 6th century AD (age of Justinian) and from later Byzantine times (essentially 10<sup>th</sup>-12<sup>th</sup> centuries AD). The following material can be ascribed to an Early Byzantine Basilican church.

- (1) Pierced screen fragments with classical mouldings and ornamental devices (bead and reel) out of crystalline limestone (fig 12).
- (2) Closure slabs and posts from chancel screens out of marble and crystalline limestone (figs 7, 8, 11, 13).

Clearly later (Mid) Byzantine are epistyle blocks with incised decoration from an iconostasis (*templon*) out of granular limestone (fig 9, 16). As also are closure slabs and an epistyle block from an iconostasis decorated with birds and beasts. While e.g. the birds



go back to classical exemplars (cf mosaics) the blocked out rendering is later Byzantine (fig 17). In addition there are a considerable number of colonette capitals, dossierets; some with cuttings to take wooden screen posts. Those with simple chamfered forms out of granular limestone decorated with stylised plant forms are later Byzantine. Some other of more sophisticated form and decoration may be earlier (figs 10, 16).

The gap in time between the earlier and later groups of architectural fragments could well be four centuries – and it is not indicated that the building remains *in situ* on the summit of the mound would have spanned this lapse of time.

### **Bronzes**

The discovery during 1954 of a hoard of bronzes within a Byzantine building provided information of a different incidence – for this is the one occasion where Byzantine period finds at Beyce Sultan can be given a stratigraphic context (v A. St 50 2000 pp. 159-70). The original trench (A) set out on the West Summit (May 5th 1954) was extended after 10 days (May 17th 1954) into an area excavation (fig 4) and the bronze hoard was discovered on the floor of a room falling exactly on the line of one face of the original trench (v A. St 50 2000 p. 165 fig 10). In this way (atypically) it was recorded in section (fig 5). This room belongs to the middle stratum of three conformably superposed building levels without any indication of a gap in occupation.

The bronze objects are well preserved and make up an interesting and varied collection (A. St 50 2000 p. 165 fig 11). Unexpectedly they are again divisible into two chronological fragments: viz an Early Byzantine group, ca 6th century AD (fig 18) and a later group Mid Byzantine ca 10th – 12th centuries AD (fig 19). This latter group includes suspension chain / strap, a reliquary cross, and two decorated plaques where all comparisons indicate a Mid Byzantine date.

It is anything but obvious how to account for the two chronologically separate groups. The excavator suggested that the deposit was a metal merchant's store. In any event, these bronzes indicate that the Mound of Beyce Sultan was inhabited during the 10<sup>th</sup>–12<sup>th</sup> centuries AD.

### **Pottery**

Quantities of polychrome pottery came to hand at the beginning of the Beyce Sultan Excavations – probably both from the surface of the mound and from the Byzantine levels encountered. A selection of this pottery was sent down to be washed and some photographs were made of it (fig 20). From this material the writer gathered a small representative collection of sherds and accompanied it with some notes. Unfortunately circumstances bore adversely on the consideration of this pottery, which might have settled immediately the chronology of the Byzantine settlement.

The director, Seton Lloyd, referred in his day-book to three successive building levels in the Byzantine Settlement. However it is doubtful that the polychrome pottery was ever correlated with these successive levels or registered in terms of its stratigraphic provenance. If so any such records are no longer to hand. Seton Lloyd's attitude in the

responsible expenditure of his limited resources was that the presence of the polychrome pottery identified the sub-surface building remains at Beyce Sultan as (later) Byzantine, and the best strategy was to leave the investigations of these remains to a separate campaign undertaken by competent « experts ». In the upshot no such campaign was undertaken. It is a principal aim in publishing this note that such a campaign should now be undertaken. The circumstances for this are now no worse than they were 50 years ago, so nothing has been lost on account of delay.

Unfortunately the bagful of sherds and the accompanying notes no longer survive. The writer kept it in his possession for some years on the possible opportunity of including some notice of it in interim excavation reports – but none was forthcoming. After a lapse of time Professor John Carswell, then Professor of Art in the American University of Beirut and occupied with Oriental Pottery, asked to have the material so that he could include it in his researches and arrange for its publication. It was accordingly handed over to him and there is no further record of it.

Seton Lloyd in his excavation day-book referred to the Byzantine pottery in cursory terms. He notes for May 5<sup>th</sup> 1954: « Went down 0.50m ... pottery obviously late Byzantine and Turkish ».

May 6<sup>th</sup> 1954: « Down to Level II. Still very late glazed pottery ».

Presumably partly on the strength of this evidence the date of the Byzantine building remains was said to be 9<sup>th</sup> to 11<sup>th</sup> centuries AD (in Vol II of the final report 1962, p.9) slightly revised in 1972 to 10<sup>th</sup> and 11<sup>th</sup> centuries AD (Vol III p.4). However it is likely that this estimate is a general impression only and not based on detailed analysis of the pottery. Beyond these remarks there is only one piece of surviving evidence. This is a photographic print showing a miscellany of about 20 small sherds (fig 20). No provenance is available beyond the fact that they were recovered at the excavations of Beyce Sultan in 1954. It is possible that many of these sherds were surface finds. In any event they support Seton Lloyd's day-book assessment « pottery obviously late Byzantine and Turkish ». Almost all these sherds appear to be post-Byzantine and the two sherds which appear to be Byzantine seem later than the 10<sup>th</sup>–11<sup>th</sup> centuries AD, suggesting Late Byzantine (polychrome) Sgraffito Ware (cf K. Dark Byzantine Pottery pp. 65-77, figs 55-58).

#### THE FORTIFIED SETTLEMENT

Alerted by the presence of Byzantine objects on and about the site, there was no difficulty in recognising the outlines of a Byzantine settlement crowning the Western Summit of Beyce Sultan. From topographical surface indications as also from evidence incidentally revealed in the Bronze Age Excavations the essential nature of this settlement was demonstrated. Proceeding from the evidence thus available it would have been a straight forward matter to investigate the settlement further – e.g. the angles of the fortification could have been excavated to reveal possible towers; the presence of a possible barbican in the western wall could have been ascertained, etc... Very reasonably

the resources of the British Institute's excavation were not diverted from the planned aim to other and unprepared for ends. And the task of investigating the Byzantine Settlement was left (and remains) for an excavation mounted to this specific end.

Such an expedition begins with unusual advantages – the nature and compass of the site are known in advance. Byzantine Beyce Sultan was not a town or large village of native growth. It was the foundation *de novo* of the central government of the Byzantine Empire. Its confines were accurately surveyed and laid out as a square ca 150m x 150m. It was sited raised up on a height and its enceinte walls were truly massive – a main wall ca 3m thick with a stone faced scarp or apron extending outwards a further 2-3m. The *raison d'être* of the settlement was defence. It was a *castrum*, a fortress. When this nature is coupled with a *floruit* ca 11<sup>th</sup>–12<sup>th</sup> centuries AD, then quite defined historical junctures emerge.

Before proceeding to discuss the historical significance of this fortified settlement, some mention should be made of the remains which are extraneous to this history, viz the architectural fragments of an Early Byzantine basilican church. It has been mentioned that no architectural blocks were discovered *in situ* during the excavations and various hypothetical possibilities accounting for the random presence of such blocks on the site were set out in A. St 47 1997 pp. 190, 191. However a general issue is worth noting here, since at bottom it may have some relevance to history.

C.H. Emilie Haspels published in 1970 a general survey « The Highlands of Phrygia ». When referring to the architectural evidence from the region she stated (pp. 221- 22) « By the remains of churches we understand fragmentary marble architectural sculpture; columns, capitals, chancel screen posts, ambo slabs, nullion shafts and the like. They are found dispersed over the highlands and must have belonged to constructed church buildings embellished after the Byzantine fashion with relief decoration in imported marble. Of the churches themselves nothing else survives.... They mostly date from the 6<sup>th</sup> century; some may be later ». Again, in his detailed discussion of a particular class of Byzantine architectural members H. Buchwald comments « In Asia Minor frequently the only known remains of churches are carved stone members often broken in fragments which were located on the site, or more commonly reused as spoils in mosques, fountains and houses, others were found in excavation. We may be certain that they were for churches not too distant from where they were found... They represent the only available remains of churches... otherwise unknown (Chancel Barrier Lintels Decorated with Carved Arcades. *Jahrbuch des Osterreichischen Byzantinistik* 45, 1995 pp. 233-76).

The relevance of this general assessment of circumstances obtaining in Phrygia to the particular circumstances obtaining at Beyce Sultan is obvious. Equally it is of significance that these circumstances are quite different from those obtaining in other Byzantine regions, e.g. in Greece. There exactly the same repertoire of decorated architectural members are found, but they are discovered incorporated in the fabric of surviving church buildings, not as random finds of individual blocks. This interesting contrast should be retained as a background to the consideration of the overall historical significance of the Beyce Sultan settlement.

## HISTORICAL SIGNIFICANCE

Whatever chronological details may eventually be discovered at the Byzantine settlement, there is no question but that the establishment by the central Government of a fortified post in this location is a matter of historical significance. The fact is that this region of Phrygia at the head waters of the Meander River has always been something of a border land. Historical record of this goes back to the Hellenisation of Western Anatolia. Ramsay devoted some notice of the circumstances in his *Historical Geography*. He points out that Civril, the rural centre of the Glaukos Valley in modern Turkish days marks a staging point in both North-South and East-West movement. Two Hellenistic cities were established close by Civril. Eumeneia, at the modern village of Işıklı (ca 10 kms to the North-West of Civril) was on Attalid (Pergamene) foundation, and Peltai (Pella) about the same distance to the South (i.e. very close to Beyce Sultan) was a Seleucid foundation. They both subsisted throughout Antiquity. Also it may be observed here that Civril itself, which was a village at the time of the excavation of 1954-55, has now become a regional town with a University.

The Arab expansion of the 7<sup>th</sup>–8<sup>th</sup> centuries AD upset the cast of Hellenised Anatolia which had endured for a millennium, and in that region marked the change from Late Antiquity to Mediaeval times. Throughout the century from 650 AD to 750 AD there were continued Arab raids, incursions, and campaigns mounted from Antioch by the Ummayyad Caliphs aimed at harrying and overthrowing the Byzantine Empire. Speaking very broadly the aim of this aggression was not piecemeal penetration and settlement but to deal a knock-out blow to a non-Islamic state as had been done in Egypt, Syria, Mesopotamia, Persia etc; to be followed by conversion of the whole territory to Dar al Islam. The most direct land route from Northern Syria to Constantinople was roughly Antioch – Adana – Tarsus – Konya (Iconium) – Pisidian Antioch – Amorium – Eskişehir (Dorylaeum) – Nicaea. And substantial engagements were fought at Amorium and Acroenum (Afyon) some distance off to the North-West of the Beyce Sultan Area (figs 1, 2).

New fortifications were made to protect regions subject to these Arab attacks and it is historically possible that the summit of Beyce Sultan mound could have been fortified during this period. However, in spite of the random finds of Early Byzantine architecture there are no *in situ* remains to support fortification during this period. With the downfall of the Ummayyad regime in 750 AD and transfer of the Caliphate to Baghdad, Arab campaigns in Anatolia did not close, but the approach was from a different quarter. They were made from the East, i.e. from the upper reaches of the Euphrates near Malatya, passing westward through Ankara to Amorium (fig 1). The urgency of the attacks also declined. Thus after 750 AD Byzantine fortification of Beyce Sultan mound is not particularly likely.

In fact there followed two or three hundred years of Byzantine revival, culminating (ca 1025 AD) in the expansion of the frontiers against Islam far to the South and to the East into Northern Syria and Northern Mesopotamia (Fig 1). However during the 11<sup>th</sup> century AD renewed pressure from Islam was manifested – and of a different nature. There had been continued movement westward of Turkish people from Central

Asia into Persia, Mesopotamia and the Eastern border of Anatolia. The underlying character of this progression was not so much warfare between rival states as the continuing piecemeal occupation of territory and assumption of its control. This, of course, presents itself as an ominous « *longue durée* » factor, an extremely unwelcome prospect to Byzantine rule in Anatolia.

The middle of the 11<sup>th</sup> century was an unfortunate period of Byzantine regression, originating with confused imperial succession at Constantinople and divisive social rivalry. During this period Turkish penetration into Anatolia was little checked. It was only with the accession of Romanus IV Diogenes, a general from Anatolia, that decided and energetic measures were taken to halt and reverse it. By this time Turkish forces had penetrated into Phrygia and had devastated the fortresses at Amorium and Chonai. A surviving inscription dated to 1070 AD shows that Romanus was concerned to refortify this vital inner frontier. The inscription was found near Eumeneia (modern Işıkli) only 20 kms or so from Beyce Sultan. Here at the head waters of the Meander River are vital ways which lead down into the Aegean coast lands.

Romanus IV was equally concerned to bar off the outer frontier of Anatolia at its eastern limits in the mountainous regions of Armenia (near the present day Erzerum). Here he fortified the city of Manzikert, but when campaigning in the area to disable future Turkish penetration, by misfortune and treachery, his army suffered an appalling defeat in 1071 (Fig 1). The result of this was in the immediate sequel Turkish forces moved at will through Anatolia to the West Coast. However the arrival of the 1<sup>st</sup> Crusade in 1097 changed this state of affairs. Although in many ways inimical to Byzantine interests, the successive presence of the first three crusading forces in Anatolia broke up the situation, and enabled the Comnenid Emperors to fight their way back to disputing the possession of Anatolia against Turkish inroads. With this a borderland ran through Phrygia on a line from Amorium to Laodicea – thus along the Glaucus Valley hard by Eumeneia, Civril and Beyce Sultan (Fig 2).

A hundred years after the Battle of Manzikert Manuel Comnenus was in effect repeating the history of Romanus IV, not far to the East in Armenia, but transferred to this inner frontier through Phrygia. He refortified large centres like Dorylaeum (Eskişehir) and military strongholds such as Soublaion near Eumeneia, and advanced as far as Iconium (Konya) in an attempt to negate Turkish aggression. Unfortunately in an uncanny parallel to Manzikert he suffered a crushing defeat at Myriokephalon near Pisidian Antioch (figs 1, 2) in 1176, so that his strenuous efforts to secure a stable and lasting frontier were abortive. When Frederick Barbarossa in 1190 led the German contingent of the Third Crusade eastward through the region from Laodicea to Pisidian Antioch, all semblance of Byzantine control was left behind at Laodicea. Thenceforward his forces on a line of march passing close by Beyce Sultan traversed a region occupied by Turkmen nomads (Fig 2). However it is perhaps possible that after the fall of Constantinople to the Latins in 1204 and the establishment of the relatively stable Greek empire of Nicea, this area of Phrygia again became border territory for Christian habitation (ca 1205 AD-1261 AD).

Such a span of history for the fortified settlement crowning Beyce Sultan would accord reasonably with the time span indicated by the building remains on the ground. That such remains in the only specimen passage recorded in section (Fig 5) also be in accordance with what might be expected of such a fortified settlement: that it may have been overrun and destroyed on several occasions in the course of border warfare. Finally it is to be noted that historical sources support the likelihood that imperial attempts to secure Anatolian frontiers would include measures like establishing new strongly defended fortified settlements on commanding positions as at Beyce Sultan. Byzantine chroniclers emphasize the diversified nature of imperial re-establishment of authority in Anatolia during this period. Such references are conveniently reproduced in the works of C. Foss (e.g. V pp. 151-53) and H. Ahrweiler (e.g. XVII pp. 180-88). The latter notes in detailed terms encomia of Manuel Comnenus to the effect that many settlements were both reconstructed and newly established so that Christian dwellers in the land could again go about peacefully on good roads: towns are now secure, those which were fallen are now standing again, and there are many towns newly founded.

When the site of Beyce Sultan located at a strategic position in Phrygia was selected for large scale excavation by the British Institute at Ankara, it was because of its obvious potential in illuminating a lengthy time range of prehistoric Anatolia. As is sometimes the case in field archaeology it did more than was expected. Eschewing detailed sub-divisions over long prehistoric ages, there are three faces which look out from Anatolian ground: Anatolian, Greek and Turkish – or substantially equivalent: Pagan, Christian and Islamic. The British Excavations were not concerned with the latter two faces, yet Beyce Sultan site contrived to bring them into joint focus. After the campaign of Alexander the Great Greek ways of life and, above all, the Greek language were preserved as significant ethos of the land; and the Christian religion took on a notable development there (from the apostle Paul to the early councils of the Church). This state of affairs endured for a millenium or more. During this lapse of time the prehistoric mound of Beyce Sultan remained deserted in an urban developed landscape (cf nearby Eucarpia, Eumeneia, Apamea, Peltae, Lunda etc). Then history took another turn and over a period of several centuries this face was replaced by a Turkish, Islamic countenance; where not only the Greek language disappeared, but the landscape lost much of its urban development to become pastoral in nature. This was the expression which struck the early European visitors to Anatolia during the later 18<sup>th</sup> and early 19<sup>th</sup> centuries – a beautiful, empty land. And this was exactly the nature of the landscape about Beyce Sultan in 1954, when the excavations began (Fig 6). A most unexpected discovery in these excavations was that the site provided unusual cameo evidence of the transformation between these two faces of Anatolian history.



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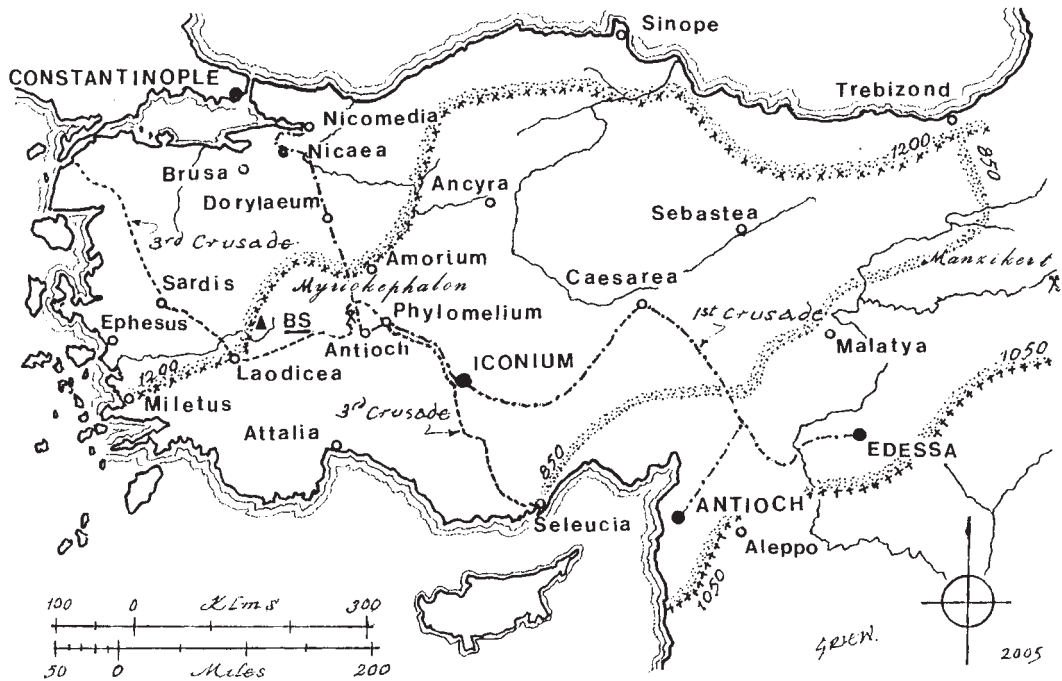


Fig. 1. Christianity and islam in Asia Minor 650 AD-1200 AD

The expansion of Islam through Syria into Asia Minor was continuous, and the first siege of Constantinople took place in 680 AD. Thereafter continued raids and campaigns were conducted by Arab forces. However by 850 AD the Abbasid Caliphs in Baghdad were content to accept a normative North Western border for Islam on a line ca Trebizond - Malatya - Seleucia. With the recovery of Byzantium under the Macedonian and Comnenid Emperors this boundary was refurled ca 200 kms to the South East so as to recover North Syria (Antioch) and North Mesopotamia (Edessa) for Byzantine rule. The Seljuk defeat of the Byzantine forces at Manzikert (1071 AD) made possible a new Islamic penetration into Anatolia by Turks. The first Crusade (1097) fought their way across Anatolia on a direct line of march administering some check to Turkish expansion.

The Seljuk defeat of Manuel Comnenus at Myriokephalon in Central Western Anatolia (1176) brought renewed Turkish incursions and the Byzantine frontier was withdrawn to Western Anatolia on a line ca Miletus, Laodicea, Amorium. The crusading army of Frederick Barbarossa accepted this boundary and marched through Byzantine territory to Laodicea (1190) to reduce as far as possible their passage through Turkish occupied territory.

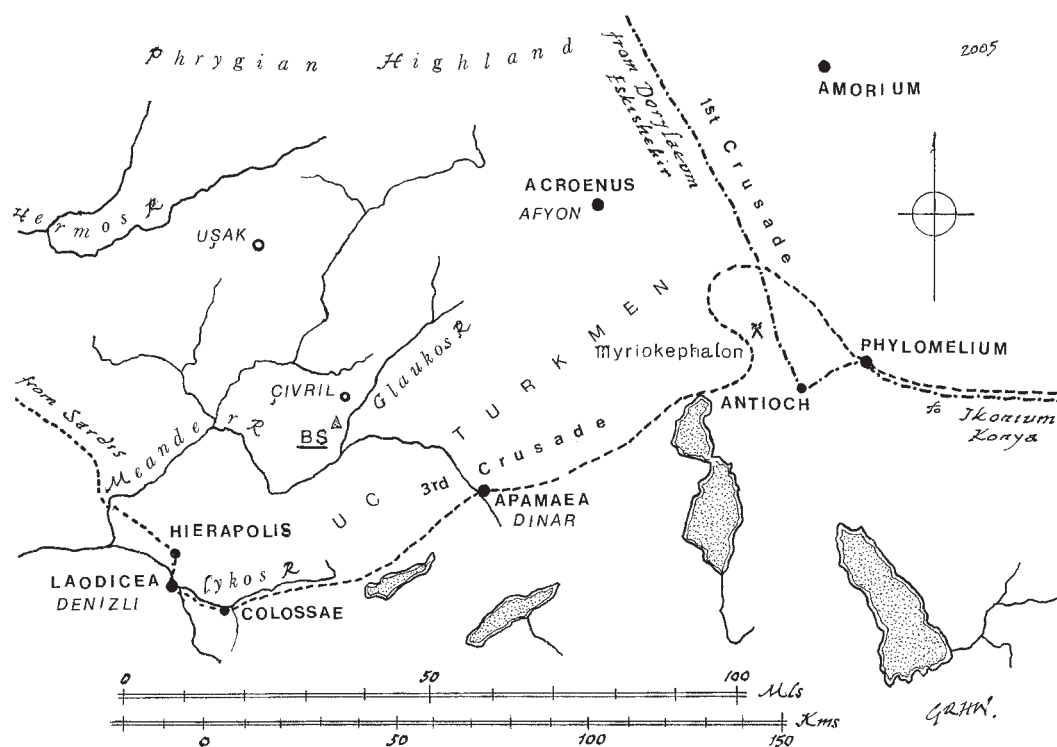


Fig. 2. Beyce Sultan and the byzantine border in the 12th century AD

The borderland extended from Laodicea (Denizli) to Amorium (Emir Dağ) with Byzantine power established to the North and West of this line, and Turks occupying land to the south and east. Manuel Comnenus re fortified the region ca 1170 AD, but after the defeat at Myriokephalon was obliged to dismantle his fortifications. Turkmen nomads (Uc, or border, Turkmen) occupied the vicinity of Beyce Sultan at the time of Frederick Barbarossa's march (1190 AD).

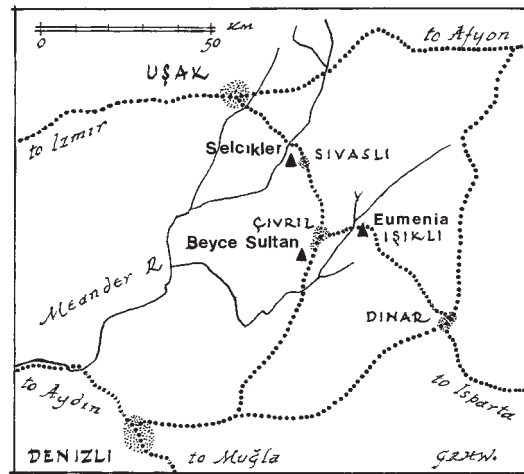


Fig. 3. Location plan of Beyce Sultan, showing present day main roads.

Beyce Sultan is ca 8 kms to the south of Çivril about halfway from Ankara to Izmir and in the centre of region extending between Afyon - Uşak - Denizli - Dinar. At Selçukler on the outskirts of Sivasslı (Phrygian Sebastia) are the ruins of a Byzantine church yielding architectural fragments similar to those found at Beyce Sultan.

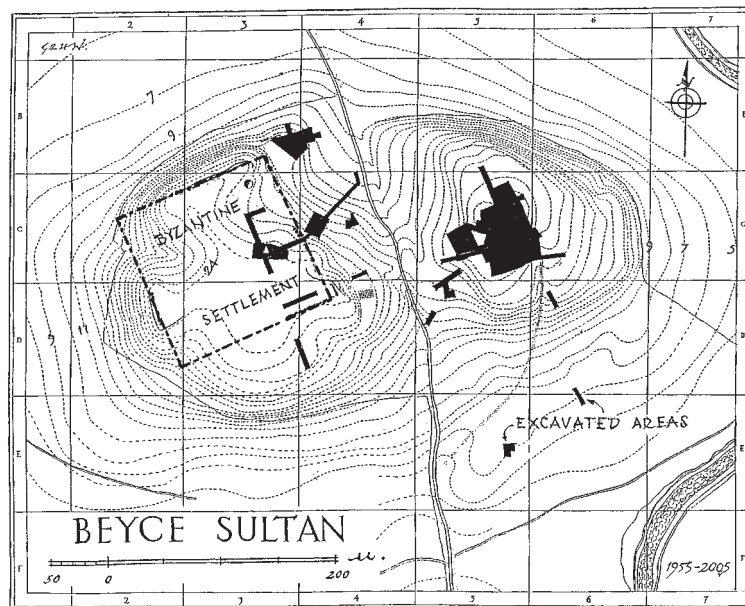


Fig. 4. Emplacement of the fortified byzantine settlement on the bronze age mound of Beyce Sultan

Contoured plan of the 'twin' topped prehistoric mound (Chalcolithic - Late Bronze Age) rising 24m above the surrounding plain and covering an area of ca 10+ hectares. The walled Byzantine settlement laid out on a square plan ca 150m x 150m occupying 2+ hectares was built on the western summit of the long abandoned mound.

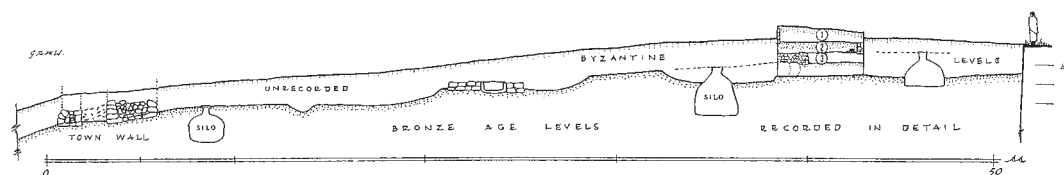


Fig. 5. Beyce Sultan. Schematic east-west section across part of western summit showing byzantine levels.

The Byzantine levels which occupy the uppermost 2m of mound debris were not recorded in full detail during the excavations, as were the underlying 10 of Bronze Age habitation during the 3rd and 2nd millennium BC. However the 2m of Byzantine occupation was seen to comprehend 3 distinct strata which on 'dead' reckoning should account for several centuries' habitation. Unfortunately it was not investigated whether or not this habitation was continuous.



Fig. 6. Beyce Sultan mound in pastoral setting

General view at present day across western summit showing Islamic 'turbe' at surface level standing above Byzantine remains.

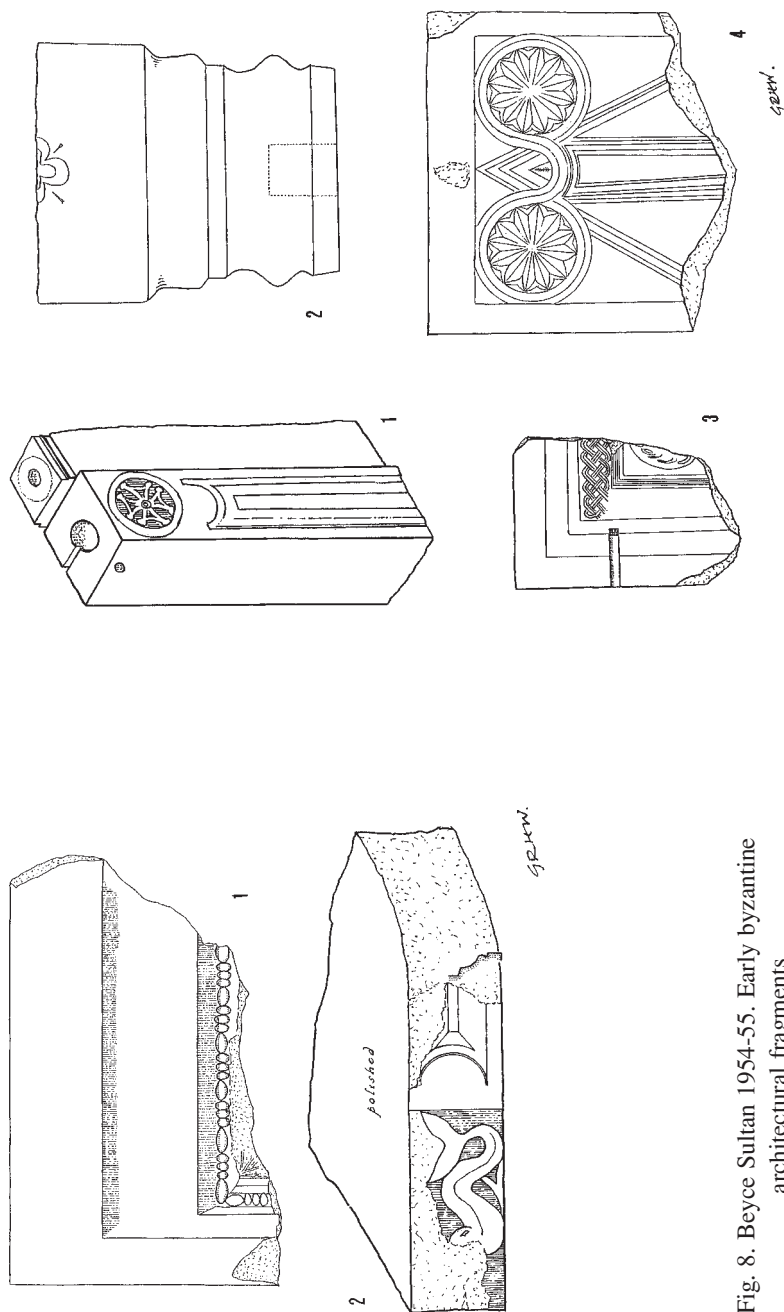


Fig. 8. Beyce Sultan 1954-55. Early byzantine architectural fragments

1. Chancel screen post with emplacement for finials decorated with disc enclosing Maltese Cross. Ext. length 55 cms
2. Crown moulding of small (chancel) post. Marble. Breadth 15.5 cms; ext. height 18 cms.
3. Fragment of closure slab. Guilloche pattern in border with traces of whirling wheel (?) in panel. Ext. dim. 50 cms x 35 cms
4. Fragment of closure slab. Diaper (lozenge) pattern in panel with interlaced 12 petalled discs. Breadth 52 cms; ext. height 52 cms

Fig. 7. Beyce Sultan 1954-55. Early byzantine architectural fragments (6th century AD) showing traces of late classical heritage

1. Fragment of closure slab with bead and real type ornament. Marble. Ext. length 52 cms.
2. Fragment of slab decorated on edge with naturalistic dolphin. Marble. Ext. length ca 30 cms; thickness ca 4.25 cms.

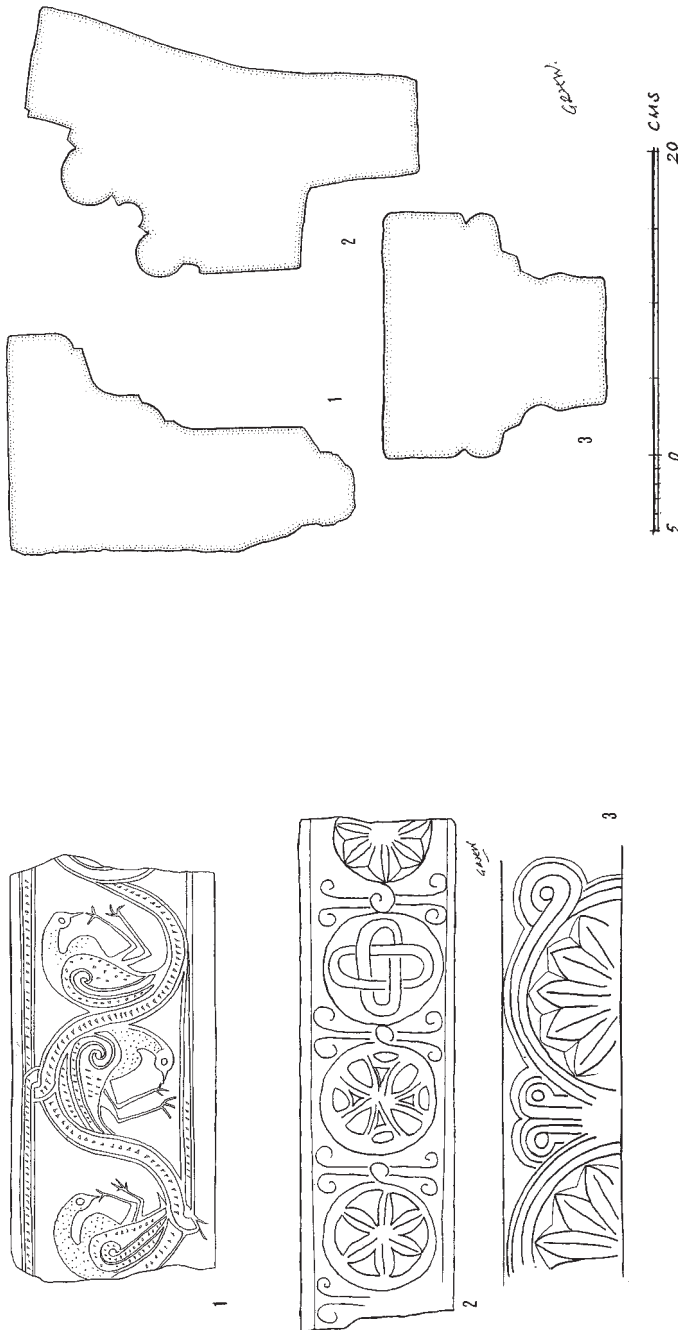


Fig. 9. Beyce Sultan 1954-55. Mid byzantine architectural fragments. Epistyle blocks

1. Fragment of epistyle block decorated with cranes inhabiting scroll work. Granular limestone. Ht 20 cms; ext. length 41 cms.
2. Fragment of epistyle block rudely incised with geometric design consisting of interlaced discs containing severally 6 and 12 petalled devices, maltese cross, links. Granular limestone. Ht 16 cms; ext. length 56 cms.
3. Fragment of epistyle block rudely incised with geometric design consisting of interlaced 6 petalled half discs. Granular limestone. Ht. 6.5 cms; ext. length 26 cms

Fig. 11. Beyce Sultan 1954-55. Moulded fragments

The nearest to classical tradition is 1, which is of marble. It is most likely Early Byzantine. 2, the door frame is a well cut, strong moulding but is mediaeval in style. It is Mid-Byzantine. 3, the railing, appears slip shod work and is also Mid-Byzantine.

1. Fragment of slab or stele. Marble. Ext. Ht. 22.5 cms.
2. Part of door frame. Thickness ca 14 cms.
3. Asymmetric railing. Upper breadth ca 16 cms. Ht 14.5 cms.



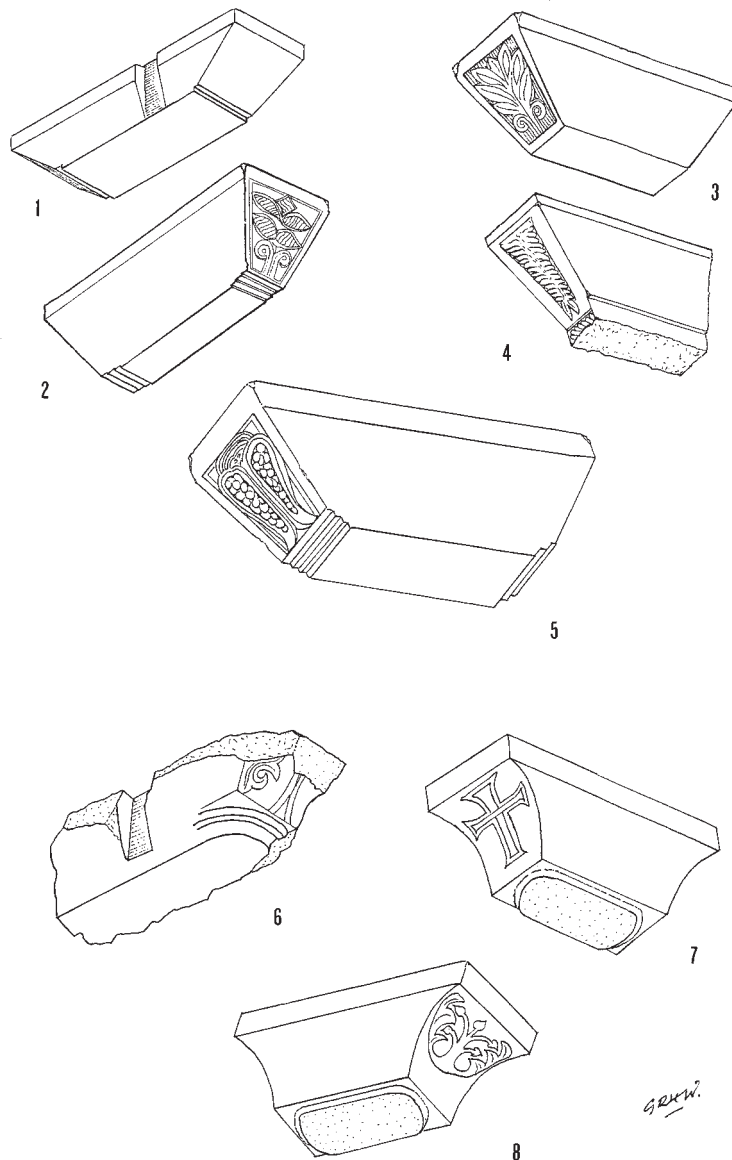


Fig. 10. Beyce Sultan 1954-55. Byzantine architectural fragments.  
Colonnette capitals/dossierets

These are of two designs. A rudimentary form with simple chamfered faces (1-5) and a developed form with cavetto faces (6-8). The simple chamfered examples are certainly Mid-Byzantine. The sophisticated examples with cavetto faces are earlier, but not necessarily Early-Byzantine.

1. Undecorated ends. Rear face with lodgement for screen post. Granular limestone. Length 40 cms; breadth 15 cms.

2. End panel decorated with stylised tree (of life). Length 55 cms; breadth 28 cms.

3. End panel decorated with stylised tree (of life). Length 51 cms; breadth 15 cms.

4. Broken block end panel decorated with plant motif. 2

5. End panel decorated with stylised grape or date clusters. Length 55 cms; breadth 15 cms (cf. No 2).

6. Broken block rear face with lodgement for screen post. End panel decorated with palmette motif. Ext. length 40 cms.

7. End panel decorated with large cross. Crystalline limestone. Length 76 cms; breadth 30 cms.

8. End panel decorated with tree and palmette. Crystalline limestone. Length 76 cms; breadth 30 cms.

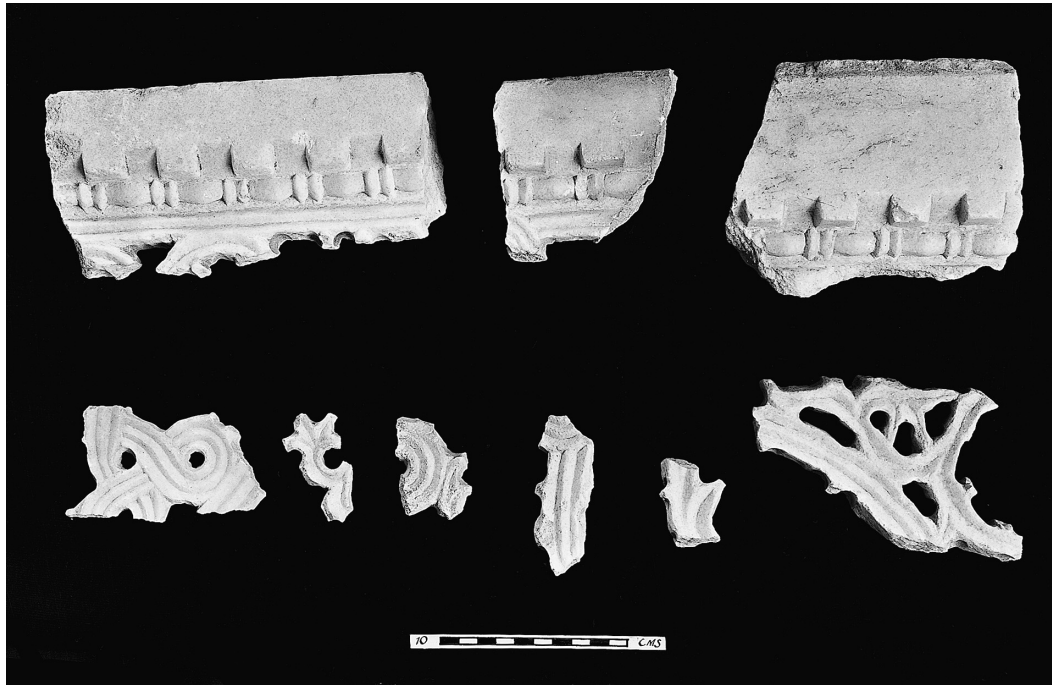


Fig. 12. Beyce Sultan 1954-55. Architectural fragments

Remains of an early Byzantine open-work (pierced) screen. Crown moulding with classical motifs: cavetto, dentils, bead and reel.



Fig. 13. Beyce Sultan 1954-55. Architectural fragments

Screen post (left) and panel (right).

The post which is of marble is most likely Early Byzantine; the panel of limestone could be either Early or Mid Byzantine work.



Fig. 14. Beyce Sultan 1954-55. Mid byzantine architectural fragment

Mid Byzantine epistyle block from templon (iconostasis). Ext. length 40 cms. Face decorated with arcaded framing of stylised trees of life and a defaced motif; soffite with interlaced 12 petalled discs.





Fig. 15. Beyce Sultan 1954-55. Mid byzantine architectural fragments

Mid Byzantine screen panels with animal figures. (above) Rock pigeon and partridge (soul birds). (below) Griffon.

These figures came down from late Antiquity (cf Mosaics), but the blocked out rendering here is Mid Byzantine work.



Fig. 16. Beyce Sultan 1954-55. Mid byzantine architectural fragments.

Mid byzantine ornamental motifs

(above) impost block end panels with stylised tree of life (date palm)

(below) epistyle block incised with scroll inhabited by cranes (constancy)



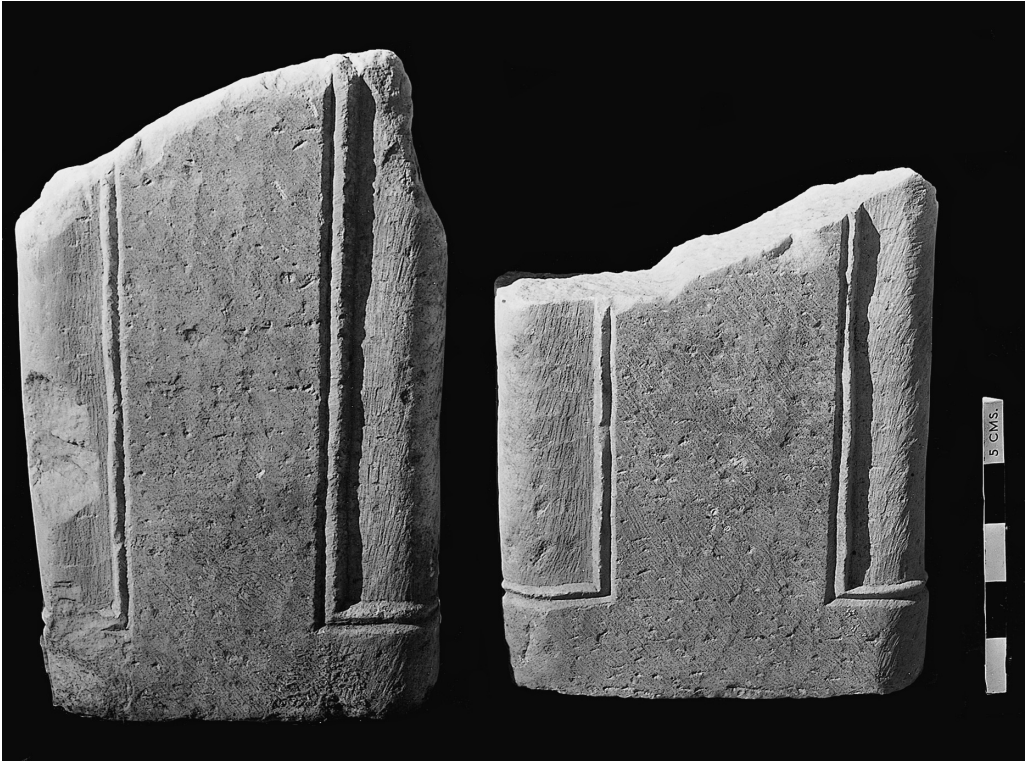


Fig. 17. Beyce Sultan 1954-55. Mid byzantine architectural fragments.  
Mullion slabs from arch headed windows



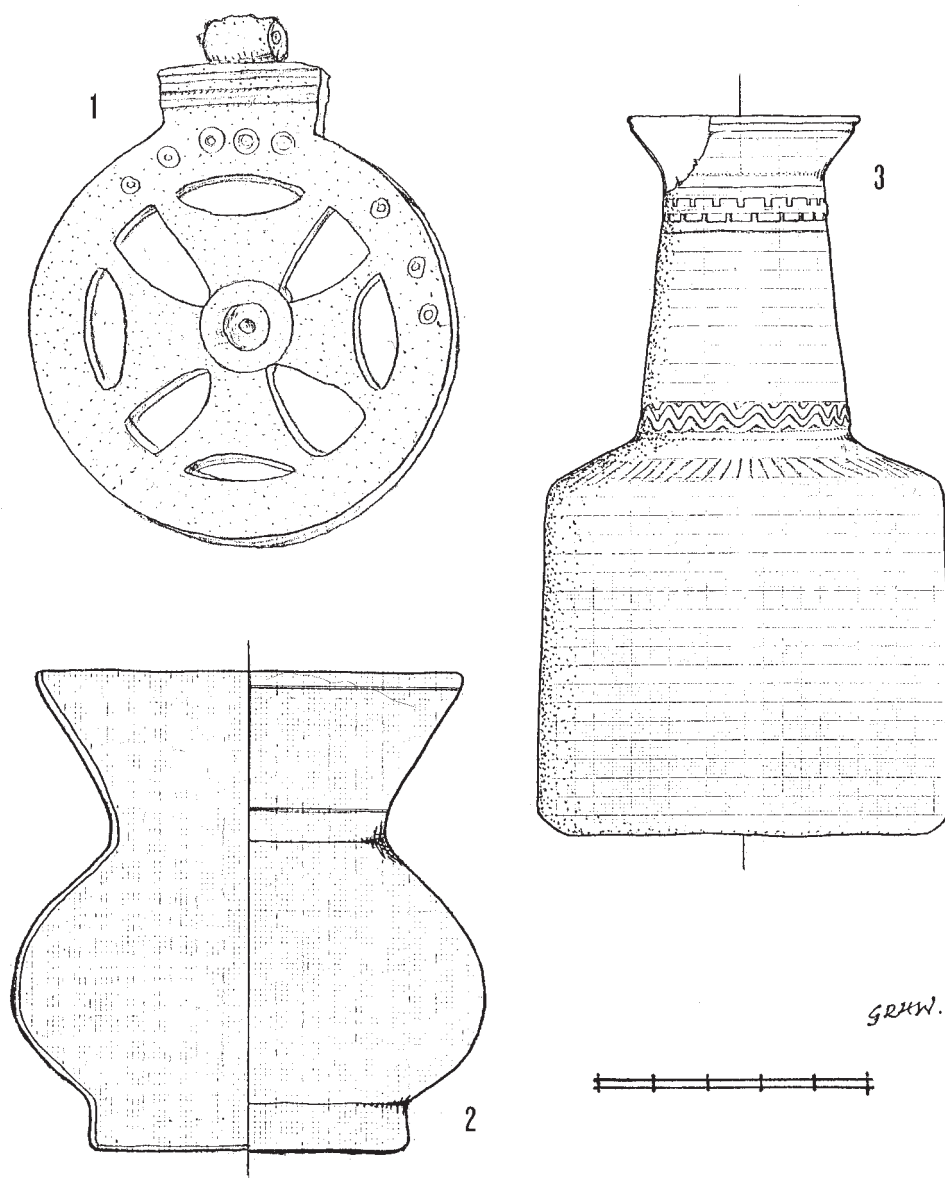


Fig. 18. Beyce Sultan 1954-55. Early byzantine bronze objects from hoard in house of 2nd byzantine building level

1. Apotropaic pendant from horse's harness
2. Standard lamp
3. Very large ewer (shown to 1/4 scale)

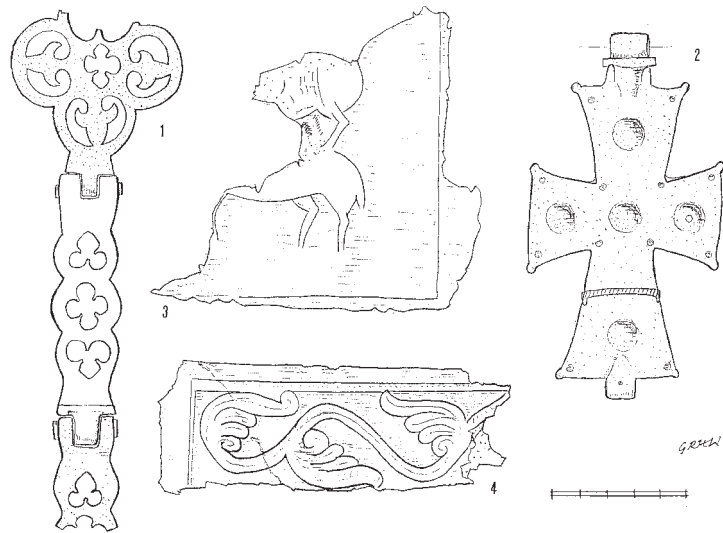


Fig. 19. Beyce Sultan 1954-55.

Mid byzantine bronze objects from hoard in house of 2nd byzantine building level

1. Suspension chain / strap
2. Reliquary cross
3. Plaque embossed with animal design
4. Plaque embossed with foliate design

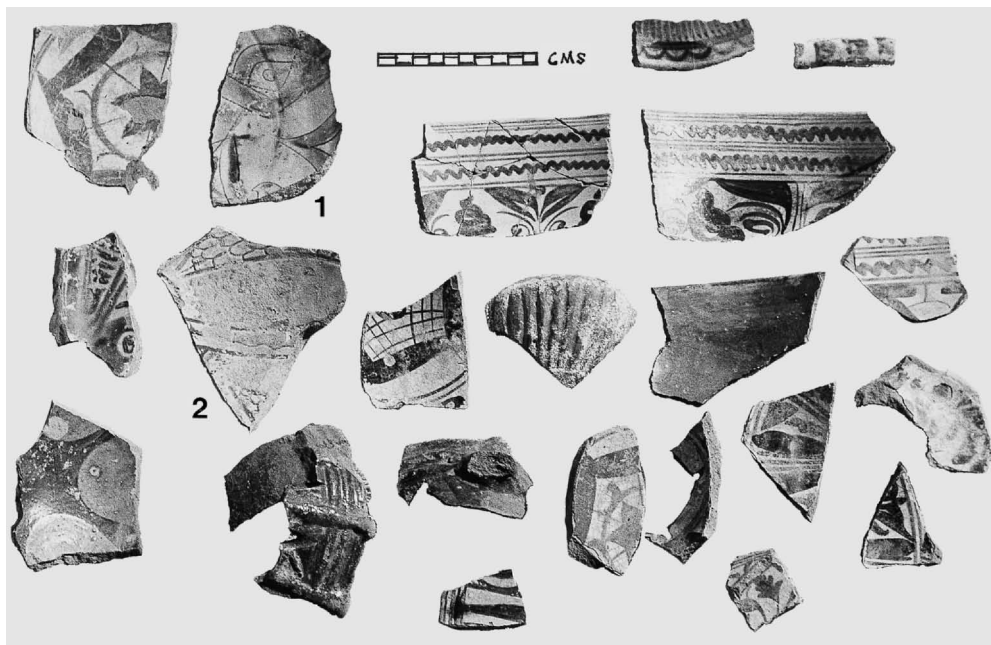


Fig. 20. Beyce Sultan 1954-55. Specimen sherds of late byzantine and turkish age

The great majority of these sherds are Turkish. Only n°s 1 and 2 appear Late Byzantine sgraffito ware.

## PLANT USE AT ÇADIR HÖYÜK, CENTRAL ANATOLIA

*Alexia Smith*<sup>1</sup>

### Introduction

Çadır Höyük lies in a wide, flat valley within the Kanak Su Basin in the Yozgat Province of central Anatolia, close to the modern-day village of Peyniryemez. It is a multi-period site with levels spanning almost continuously from the Late Chalcolithic to the Islamic periods (Gorny et al. 1999, 2000); Gorny (2006) argues that Çadır Höyük is the ancient city of Zippalanda mentioned in Hittite texts. Ongoing excavations at the site, currently directed by Ronald L. Gorny of the University of Chicago and Sharon Steadman of the State University of New York College at Cortland, aim to “document the effect of environment on cultural change” in the region (Gorny et al. 2000: 153). Consequently, archaeobotanical studies form an important and integral component of work at the site. This paper outlines preliminary results of the analysis of the archaeobotanical remains from Çadır Höyük and supplement earlier archaeobotanical work conducted by Chernoff and Harnischfeger (1996).

Owing to the presence of well preserved plant remains from good contexts from the Late Chalcolithic to the Islamic periods, Çadır Höyük presents a very interesting opportunity for examining changes in plant use over time. The region surrounding the site is immensely rich in archaeological remains, yet few archaeobotanical studies have been conducted in the area to date (see Nesbitt and Samuel 1996). These results add to our knowledge of plant use and crop cultivation in Central Anatolia, and complement studies conducted further to the west at Gordion (McGovern et al. 1999) and Kaman Kalehöyük (Nesbitt 1993), and to the south and southeast at Çatal Höyük (e.g., Fairbairn et al. 2002), Titriş Höyük (Algaze et al. 1995), Hassek Höyük (Gregor 1992), Kurban Höyük (Algaze et al. 1986), Korucutepe (van Zeist and Heeres 1974), Girikihacian (van Zeist 1979–1980), and İmamoğlu Höyük (Oybak and Demirci 1997).

Archaeobotany provides insight into plant use in antiquity, including cropping systems (Hillman 1981, 1984; van Zeist 1993), the use of plants as medicine or for textile dyes (Hansen 1991; Smith 2005), and in some instances it can also reflect local environments (Miller 1997; Smith 2005). Archaeobotany can also provide insight into animal exploitation and grazing practices through the examination of seeds preserved in dung fuel, which reflects the types of fodder eaten (Miller 1984a, 1984b). The sorting and analysis of the archaeobotanical remains from Çadır Höyük is ongoing, but some interesting observations on plant use and crop production can be made.

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## Environmental Setting and Land-use

Summers around Çadır Höyük are typically very dry with annual rainfall averaging between 370 and 425 mm, the bulk of which falls between October and June (Chernoff and Harnischfeger 1996). Investigation of the site was initially prompted by anticipated flooding following the construction of the Gelingüllü Dam as part of the Alişar Regional Project (Gorny 1994). At its maximum, the reservoir reaches the base of the southern slope of the tell (see Gorny et al. 1999: figure 18). This reservoir, while potentially submerging any ancient settlement on the southern side of the tell, allows for convenient flotation of archaeobotanical remains. In antiquity the most prominent water source is likely to have been the Eğri Ozu River, a tributary of the Kanak Su River (Chernoff and Harnischfeger 1996), and the area to the south of the mound would have been largely dry.

Unfortunately, very few palaeoenvironmental studies of remains contemporary with the site have been conducted in the area, and studies conducted elsewhere (e.g., Eastwood et al. 1999, Kuzucuoglu and Roberts 1997, Willis 1995, van Zeist, Woldring, and Stapert 1975) are not directly relevant due to the strong regional environmental contrasts across Anatolia. At Eski Acıgöl, just east of Tuz Gölü in northwestern Cappadocia pollen records demonstrate that diverse woodland species were present during the Neolithic around 8000 BP, after which time crop cultivation is evident (Woldring and Bottema 2001/2002). Woldring and Bottema (2001/2002: 28) also argue that by 4000 BP, contemporary with the rise of the Hittite Empire, oak coverage sharply declines perhaps as a result of the amount of wood required for iron production. This decline in oak was also observed by Roberts et al. (2001: 733) who note that the “unlike the well-watered uplands of southwest Turkey, neither forest nor steppe plant communities recovered from the mid-Holocene human impact in central Anatolia.” A study by Bottema (1990) examined birch pollen (*Betula* sp.) from Kaz Gölü in Tokat province and Lâkik Gölü in Samsun, both north of the site. The little *Betula* pollen that is present in those cores over the past 5000 years is thought to represent “background noise” from Europe, and no climatic reconstructions are outlined. Other studies by Bottema, Woldring, and Aytuğ (1993/1994) spanning the areas of Abant, Yeniçağa, Kaz, Lâdik, and Taklı Gölü in northern Anatolia, suggest a relatively stable forest cover dominated by pine (*Pinus* sp.) between 7000–4000 B.P., after which time the picture is less clear.

Today, the fertile land surrounding the mound is heavily cultivated and agriculture dominates the local economy. Many local inhabitants are involved in large-scale farming for some part of the year, but food production is also important at the household level. Almost every house has a garden which provides a major source of fruit, vegetables, and herbs. The gardens are somewhat uniform and reveal an intimate knowledge of plant requirements and soil fertility management, frequently containing a combination of maize, beans, sunflowers, potatoes, peppers, tomatoes, cucumbers, lettuce, onions, squash, parsley, sorrel, hollyhock (*Alcea rosea* L. and *Alcea setosa* [Boiss.] Alef.), and grapes. A number of fruit trees including cherry, plum, pear, apricot, peach, and apple are usually planted around the borders of the garden, which have the added benefit of

providing shade for the herbs. Maize grows quickly after planting and is often used as a support for the beans. This type of multi-cropping allows for a larger and more diverse yield per unit area; the combination of legumes, which enhance nitrogen levels within the soil, with a nitrogen demanding plant such as maize, also helps to maintain soil fertility. While the introduction of New World crops is clearly recent, it is likely that gardens also played a significant role in antiquity although their existence can be difficult to identify in the archaeological record (but see Miller and Gleason 1994). Villagers also collect a variety of wild plants. *Peganum harmala* L., known in Turkish as *üzerlik*, currently grows at Çadır Höyük and is frequently collected once it has dried in the field. It is strung to form wall hangings that ward off the “evil eye” (*nazarlık*), and highlights the varied and symbolic use of plants in the area.

On a larger scale, wheat, barley, rye, lentil, and chickpea form the five most important crops in the area, with cattle and sheep being the most important livestock. Chemical fertilizers are currently used, but soil fertility is also maintained by the rotation of cereals and legumes. A proportion of seeds from each harvest is normally stored and used for planting the following year and local farmers frequently trade or sell seed stock for planting, a practice that maintains genetic diversity and ensures that good quality stock is available. Locals associate the quality of harvests with the wind, identifying two types: hot, dry *lodos* winds blow from the south and dry out the growing wheat, resulting in less precipitation, and consequently lower yields and poor quality grain. *Poyraz* winds, from the north, are cooler and are associated with higher yields and better quality grain. Only the latter grain would typically be kept and traded as seed stock.

Following the harvest of a cereal, livestock graze on the stubble, and then the fields are burned. Field burning quickly and effectively removes cereal stubble facilitating plowing for the next season, and since it is cheaper than applying chemicals to speed decay of the crop remnants, the practice remains popular despite recent regional bans. Burns are usually carefully planned and timed to take into account wind speed and direction and the contents of adjacent fields. Ditches are sometimes dug to control the fire, but occasionally fires can spread uncontrollably and cause significant damage. During the 1999 season, the excavation team saw a field fire in the distance. Within 10 minutes, the fire rapidly spread over the site (Fig. 1). The fire was short-lived but burned all of the dried vegetation on the mound. In 1993, Ronald Gorny noted the presence of burning around Alişar Höyük that had been intense enough to burn through the bases of nearby telephone poles, leaving their tops suspended by telephone wires (personal communication 1999). Since Çadır Höyük, like many other mounds in the Near East, is surrounded by agricultural fields, the chance of such events occurring is high. Some projects may even intentionally burn mounds to clear them of dense vegetation or thistles making them easier to work on or survey. Such burning events are rarely considered relevant to archaeologists, but they could affect the interpretation of archaeobotanical remains, a factor that will be considered more thoroughly in the discussion.

## Sample Collection and Recovery

A systematic method of collection was adopted at Çadır Höyük. Samples were collected from a variety of contexts, including hearths, floors, pits, and burials, but control samples were also collected from less-well defined contexts between recognized features, thereby allowing plant use across the site to be investigated. Samples were collected by excavators and placed into thick plastic bags ready for flotation by the archaeobotanist. From 1993 to 1999, Miriam Chernoff oversaw the collection and processing of samples and the current author continued the work from 1999 onwards. The flotation tank used at the site (Fig. 2) was made by a metal worker in the nearby town of Sorgun, under the supervision of Chernoff, following the design laid out by Nesbitt (1995). Water was conveniently drawn from the man-made reservoir at the base of the mound using a gasoline-powered pump.

The only modification to Nesbitt's design, was the use of a cloth square to line the top sieve. This technique facilitated the removal of the plant remains from the sieve and reduced the risk of damaging them, but occasionally needed careful monitoring. When processing very silty sediments, silts could float across the lip of the machine and line the cloth, eventually hampering water flow. Gentle manipulation of the sieve washed the sediments to one side, however, allowing water to pass through the sieve easily. Once flotation was complete, each sample was tagged and hung on a line in the shade to dry. Dry light fractions were then placed into containers, packed in plastic boxes, and taken to the archaeobotany laboratory at Boston University directed by Julie Hansen for analysis. Heavy fractions were dried and sorted at the site.<sup>2</sup>

## Archaeobotanical Remains

The charred plant remains from Çadır Höyük are, on the whole, well preserved and document plant use over a long period of time. This report presents samples dating to the Chalcolithic, Hittite, and Byzantine periods and complements earlier work conducted by Miriam Chernoff who examined samples from Chalcolithic/Early Bronze I, Late Phrygian/Early Hellenistic, and Persian contexts (Chernoff and Harnischfeger 1996). The contents of 20 samples are presented here: context information for 18 samples is provided in Table 1 and their contents summarized in Table 2. Two other samples, which require special comment, are outlined in the discussion.

## Discussion and Interpretation

The samples presented come from a variety of contexts including floors and inter-floors, pits, burials, hearths, pot contents, ovens, and shelf collapse. While knowledge of a sample's archaeological context is key in interpreting archaeobotanical remains, as

<sup>2</sup> A 1.5 mm mesh was used for the heavy fraction. For the light fraction, the muslin cloth lining a 0.5 mm sieve allowed for remains as small as 0.2 mm to be retrieved.



Hillman (1984) points out, often the converse can be true and archaeobotany can help define the function or nature of a particular context. Both instances apply in the interpretation of these remains.

Just as with faunal remains, it is important to consider how plant remains arrive at an archaeological site, the conditions that result in their preservation, and post-depositional factors, since all of these variables affect the interpretation of the finds. Most of the archaeobotanical remains from Çadır Höyük have been preserved through charring, although phytoliths and some mineralized plant parts are present. In the Chalcolithic levels of a domestic structure in Area 770.890, a concentration of phytoliths thought to be the remnants of a straw mat was found during the 2001 season. Such concentrated finds at the site, however, are not commonly observed.

The remains of a collapsed Chalcolithic shelving unit (L69) radiocarbon dated to  $4700 \pm 80$  B.P. (uncalibrated, Beta 159391) were also recovered from Area 770.890 in 2001, and samples were collected across a  $50 \times 50$  cm grid so that changes in plant presence over space could be assessed. With the exception of *Buglossoides arvensis*, which appears to be ubiquitous throughout the site, few weeds were present in the shelf samples, with domesticated species such as wheat, barley, lentil, and bitter vetch being slightly more abundant (sample 8). Many of the samples were essentially sterile, however. Since the shelves were wood, and were preserved by charring, any seeds stored on the shelves at the time of destruction would also have been charred and likely preserved. This was not the case. A large amount of pottery was associated with the shelves, but there is no evidence to suggest that they were used to store plant remains.

During the 2000 season, numerous Chalcolithic pits were excavated in Area 770.900, varying in both size and in the relative amount of charred remains recovered. The Chalcolithic pits presented here do not contain a huge amount of material, although it is tempting to suggest that domestic species dominate (see samples 3 and 9). A pit dating to the Hittite period (sample 12) was much richer and contained a greater diversity of weed seeds, but much more evidence is needed before temporal comparisons can be drawn. As McCorriston (1995) notes, middens and pits frequently represent accumulations of debris or waste over long periods of time, and do not present a single- or limited-use event such as hearths, thereby providing a different insight into plant exploitation.

Clear differences can be seen between the contents of two hearths (samples 10 and 13). Sample 13, a Hittite hearth radiocarbon dated to  $2920 \pm 70$  B.P. (uncalibrated, Beta 159385), contains a large proportion of wood relative to seeds. A range of species and genera are represented, but there is a greater abundance of domesticated species such as wheat, barley, and various legumes, relative to weeds. Together, these data suggest that wood was used as the main fuel for the fire. The sample also contains a large amount of modern rootlets, resulting from proximity to the modern-day surface, indicating the potential for mixing and contamination. Sample 10, a Chalcolithic hearth, contains a much higher proportion of seeds and less wood charcoal. While domesticated species such as wheat, barley, and lentil are present, seeds from field weeds or forage plants dominate. The relative paucity of wood charcoal and domesticates, together with the



presence of small legumes, some with their pods still attached, suggests that animal dung was the main source of fuel in this hearth. As Miller (1984b) has argued, undigested seeds frequently occur in animal dung, so the contents of this sample likely represent the various types of browse consumed by the animal that generated the dung. She has also observed that the frequency of dung use tends to increase in areas where wood is scarce (Miller 1990). Clearly more hearth samples from Çadır Höyük are needed before a pattern can be observed, but it is interesting that wood was being used as a fuel during the Hittite period, a time when palynological evidence documents an opening of the landscape.

The floors contain a mixture of domesticates and weeds. The Hittite floor in Area 780.890 (sample 14) contained domesticated cereals and legumes but no weed seeds were observed. The Chalcolithic floors (samples 1 and 2) excavated in the deep sounding, yielded relatively smaller amounts of charred materials and contain mostly wheat, followed by lentils, and a range of weeds. Sample 5 was collected from an “ash installation” beneath the Chalcolithic floors in the deep sounding and lay directly atop Locus 67. A sample taken from Locus 67 (Area 770.900DS, FCN 3537) was essentially sterile, containing only several very small (1–2 mm) wood charcoal fragments that may have been worked down from upper levels. The ash installation may represent the earliest cultural deposits at the site, although its function remains unclear.

At the other end of the temporal sequence, remains from the “Terrace” dating to the Byzantine period are particularly interesting (sample 18). The Terrace is located just off the mound on flat agricultural land to the east of the tell. The context of sample 18 was initially designated an oven or burned area, but the contents are very unusual for an oven. The sample was associated with the remains of a metal plowshare and was close to a room that appears to be either a cellar or a barn. It contained a high proportion of free-threshing wheat species, 2-row hulled barley, cereal stem fragments, and *Galium* sp. seeds, more commonly known as bedstraw or cleavers. The abundance of rachis fragments allowed for the secure identification of *Triticum aestivum* (bread wheat) and *Triticum durum* (durum wheat), the latter of which is more drought tolerant. The presence of genera such as *Atriplex* and *Salsola* may point to marshy or saline conditions around the site and if associated with the crop may be indicative of intensive irrigation. While the *Galium* seeds have not yet been identified beyond the genus level, their presence with large numbers of cereal stem fragments and barley seeds could indicate their growth as a crop weed. Hillman (1991: 31) notes that *Galium aparine* L. can dominate modern cereal crops in southern Britain “to the point where it flattens them and renders them unharvestable.” While the ecological conditions in this part of Turkey are, and most likely were, very different from that in southern Britain, such an association is not unthinkable, and the *Galium* sp. seeds may have been collected together with the cereals being more suited for animal use than human consumption. The association of plant remains, when considered alongside the other archaeological finds, suggests that the area may have been part of a barn. This assertion is further supported by the presence of charred dung in the sample.

Several species appear consistently across the site and could be considered “background noise,” the most notable being *Buglossoides arvensis*, commonly referred to

as “gromwell,” or “stoneseed” (Davis 1978; Post 1932: 240). These seeds preserve well due to their high silica content and frequently are thought to be modern contaminants as they are often uncarbonized. They are commonly found in the Near East, both in modern-day and archaeological contexts. Since the plant has few economic uses (although the roots can be boiled to make a medicinal tea), its ubiquity on archaeological sites is intriguing, as humans are unlikely to intentionally bring the plant to a site with a high degree of frequency. It is possible that the seeds could enter deposits, or become worked into deposits, during times of site abandonment, since gromwell is frequently found growing on deserted mounds today.

The notion of plant material entering the archaeological record during periods of site abandonment is an interesting one, and a process that deserves more attention. A number of studies have examined the general impact of fire on archaeological sites (e.g., Canti and Linford 2000), but the effect of modern fires (or historical fires during phases of site abandonment) on plant remains needs to be considered. Normally, the process of charring, and hence preservation, is associated with site-based human activity in antiquity, but as shown in Figure 2, vegetation covering a mound can easily be charred as a consequence of field burning. While working in the Near East I have witnessed numerous instances of mounds being accidentally burned, and since many are located in rural settings, it is likely that such events have affected most tells periodically. Burning typically last several minutes, and while the heat is intense, preliminary experiments by the author suggest that the heat generated by a brush fire (as opposed to the high sustained heat of a forest fire) is insufficient to char modern seeds buried several centimeters below the surface. The fire does, however, char plant material on the surface which may then be washed into cracks in the soil by rainfall or otherwise incorporated into the matrix constituting non-anthropogenic “noise” or contamination. Furthermore, during excavations recently charred material can be blown into trenches and contaminate samples. The presence of incompletely charred plant material in a sample from a Hittite burial (FCN 3490, Area 780.890, Feature 4, radiocarbon dated to  $2840 \pm 60$  B.P., uncalibrated, Beta 146704) located close to the modern surface suggests contamination by a recent burn, possibly following the fire in 1999. If burning events occurred in antiquity some time after the primary deposition of a context, anachronistic contamination would be difficult to more detect because any uncharred components would decay, leaving only charred fragments of any partially burned seeds or wood.<sup>3</sup>

## Conclusions and Comparisons

The samples discussed cover a range of contexts, including floors and inter-floors, pits, burials, hearths, pot contents, ovens, and shelf collapse. When the contexts are grouped, a number of general conclusions can be drawn. Floors generally contain a range of domesticated species such as wheat and barley, but also varying degrees of wild

<sup>3</sup> Due to contamination, this sample was not fully sorted and is not discussed any further here.

species. None of the pots contain a large amount of charred plant material and the remains more likely represent “background noise” than remnants of stored seeds. These samples are largely dominated by domesticated species such as wheat and lentil rather than weeds seeds, possibly reflecting the domestic contents in which the pots were found. The contents of the hearths vary, and document both wood and dung fueled fires, with a greater proportion of forage seeds relative to wood charcoal being found in the latter. The unusual find of a collapsed shelving unit yielded relatively sterile samples, but more information regarding the shelves and their function may be provided following the analysis of further samples. The “barn” context is notable, and may represent an enclosure used to house or feed animals.

It is too early to evaluate changes in plant use at Çadır Höyük over time but it is, nonetheless, useful to group the finds by time period for summary purposes. From the Chalcolithic samples, emmer and einkorn wheat (*Triticum dicoccum* and *T. monococcum* respectively), barley (*Hordeum* sp.), and lentil (*Lens culinaris*) appear to be the most important crops, with cereals being more numerous than legumes. Pea (*Pisum* sp.) and bitter vetch (*Vicia ervilia*) also appear, but are much less prevalent than lentils. These finds compare well with the Halafian remains from Girikihacıyan in southeastern Anatolia (van Zeist 1979–1980) where emmer was the main cereal crop followed by einkorn, hulled barley, and lentil, bitter vetch, and chickpea (*Cicer arietinum* L.). Chickpea has not yet been found at Çadır Höyük, however, and pea is absent from the Girikihacıyan remains. Similar finds of barley, lentil, and chickpea are also reported for Uruk contexts at Hassek Höyük (Gregor 1992).

Emmer and einkorn wheat, barley, lentils, and bitter vetch are also common in later samples from Çadır Höyük. Bread/macaroni wheat (*Triticum aestivum/durum*) has been found in samples dating to the Hittite and Iron/Byzantine periods, but has not been found in any Chalcolithic context (although Chernoff and Harnischfeger [1996] suggest the possibility of *T. aestivum* L. being present in Chalcolithic–Early Bronze Age I samples from the deep sounding at Çadır). The later samples also contain two-row hulled barley, which is not present in the Chalcolithic samples. Again, it is too early to draw temporal comparisons, but the more detailed information regarding barley in later periods could reflect differential preservation rather than any substantial differences in plant use. Much of the barley found in Chalcolithic samples is poorly preserved, and could only be identified to the genus level. Numerous Chalcolithic wheat grains are well preserved, suggesting that conditions at the site are conducive to preservation; the reason for this differential preservation is unknown. Interestingly, van Zeist and Bakker-Heeres (1975: 227) also note the poor preservation of *Hordeum* sp. in Chalcolithic finds at Korucutepe and Tepecik in the Altınova plain, eastern Anatolia. At these sites *Hordeum distichum* and *Triticum aestivum/durum* also dominate in younger samples dating to the Third millennium B.C.

Overall the plant remains at Çadır Höyük are well preserved and vary greatly between contexts. The site holds much potential to document changes in cultivation between the Chalcolithic and Islamic periods. Any study of agriculture is incomplete,

however, without a zooarchaeological study; the multi-disciplinary approach adopted at Çadır Höyük will yield interesting results regarding changing modes of land use once examination of the plant and animal remains are complete and those data integrated.

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Table 1. Context information for samples presented

Sample No.	Area	Feature/Locus	FCN	Context	Period	Sediment Vol. (l)	Flot mass (g)
1	770.900DS	F40(s)	2215	Inter-floor	Chalcolithic	30	1.98
2	770.900DS	F25(s)	2210	Plaster floor	Chalcolithic	20	2.14
3	770.900DS	L47	2469	Pit	Chalcolithic	15	1.76
4	770.900DS	L60	3121	Fill (next to L61)	Chalcolithic	20	4.50
5	770900DS	L66	3507	Ash installation	Chalcolithic	18	8.78
6	770.890	F54	4080	Plaster floor	Chalcolithic	20	8.15
7	770.890	F44	3394	Baby burial	Chalcolithic	8	2.56
8	770.890	L69	4649	Shelf collapse	Chalcolithic	14	6.52
9	770.900	F53/L75	3345	Pit	Chalcolithic	10	2.76
10	770.900	F26	2227	Hearth	Chalcolithic	10	3.64
11	770.880	L3	3029	Pot contents	Hittite	4	1.50
12	770.880	F13	5014	Pit	Hittite	32	24.50
13	780.890	F5	3199	Hearth	Old Hittite	37	56.94
14	780.890	F10	4413	Plaster floor	Hittite	16	10.33
15	800.930AB	F16	4160	Oven	Hittite	57	31.55
16	790.890	L23	4995	Pot contents	Iron	3	3.42
17	790.890	F8	4991	Oven	Iron	18	48.28
18	Terrace	F2	5389	Oven?	Byzantine	16	81.14









Figure 1. View of Çadır Höyük during an unintended brush fire caused by the burning of nearby agricultural fields. Charred plant material is visible at the top of the mound, with the flames moving down and to the left.



Figure 2. The flotation machine in use at Çadır Höyük during the 2000 season.

## PRELIMINARY REPORT ON THE SALVAGE ARCHAEOLOGICAL EXCAVATIONS AT THE EARLY NEOLITHIC SITE YABALKOVO IN THE MARITSA VALLEY, 2000-2005 field seasons<sup>1</sup>

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### I. GENERAL INTRODUCTION. STRATIGRAPHY AND TOPOGRAPHY OF THE SITE

*K. Leshtakov*

Yabalkovo-Karabyulyuk site<sup>2</sup> is situated in the central part of Upper Thrace, in the valley of the Maritsa River (Fig. 1). The salvage excavations began here in 2000 as a part of the general project for studies along the Maritsa motorway (Leshtakov, K. 1997:11-12), when about an acre was excavated through trenches and the general contours of the Early Neolithic settlement<sup>3</sup> were outlined. In 2002-05 the excavations in the same sector continued and were extended to other areas, as the northern part of the settlement was also crossed by a railway line and a parallel road. This report presents the main results from the 2000-05 excavations, which are essentially preliminary as construction works are still in progress. The prehistoric settlement is known in the literature since the second half of the 19<sup>th</sup> century in the time of the construction of Plovdiv-Edirne railway. The finds reported at that time (Skorpil H. and K., 1898:88, 98) are kept in the Archaeological Museum in Sofia.

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Studied Early Neolithic settlements in Upper Thrace are not numerous, while unearthed open-air sites are few (Fig 1.). Therefore, the excavations of every new site contribute important new information, ever more valuable in the concrete case. Beyond any doubt, the new topical results correlate the data coming from tells in Upper Thrace localized mainly in the foothills of the Sredna Gora Mountain. The situation of

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<sup>2</sup> Further in the text and elsewhere, the Early Neolithic settlement is designated as Yabalkovo, after the name of the modern village.

<sup>3</sup> The term "Early Neolithic period" is according to the Balkan terminology and corresponds to the Karanovo sequence.

Yabalkovo in the Maritsa valley provides a good opportunity for comparison with the excavated sites in Eastern Thrace and Northwest Anatolia (Roodenberg, J., L. Thissen and H. Buitenhuis 1990:61, 76-77, 99-102; Roodenberg, J. 1999; Özdoğan, M., N. Başgelen 1999) and for the establishment of a link between Anatolia and Thrace in the Early Neolithic period.

### Localization and topography of the site

The Karabyulyuk locality falls in the vicinity of Yabalkovo village close to the Maritsa river and covers an area over 50 acres (Fig. 3). The terrain, which is part of the second terrace of the Maritsa valley, is slightly sloping to the west-northwest towards the river bed<sup>4</sup>. The landscape to the south is dominated by hilltops of volcanic origin being the northernmost parts of the Rhodope Mountains. A large spring issues immediately to the east forming small marshes at the present. In antiquity there should have been spacious marshlands formed by the periodical flooding of the Maritsa River. In the southwest direction there are other large springs, flowing into a small stream, which probably limited the built up area. The surrounding hills have served as a quarry since Antiquity and throughout the Middle Ages. The soil covering the slopes of the river valley is pellusert (or *pellic vertisol* after FAO terminology) more than 1 m thick – difficult for cultivation without agricultural land machines. The uppermost layer is a comparatively late formation, accumulated probably after the mid 5<sup>th</sup> millennium BC. The virgin soil below is carbonate deposit coloured from beige-ochre to reddish, with Pliocene origin. It is mixed with limestone inclusions different in size and concentration. The soil in the Holocene Maritsa valley close to the river-bed is ustifluvint (or *fluvisol* after FAO) – light and easily worked arable land (Koynov, V., I. Kabakchiev, K. Boneva 1998:159-160, 185-187).

Field surveys in 1991 and 1993 revealed scattered pottery sherds, flint nuclei and artefacts, stone implements and pieces of burnt wall plaster spread over a considerable area – more than 25 acres. The plotting of the artefacts demonstrated the existence of several sites from the Neolithic period, Late Iron Age and Mediaeval times.

Before moving to the results of the excavations themselves, we should map other archaeological sites in the region in passim (Fig. 2). As everywhere else in Upper Thrace life here was dynamic and continued with short breaks from the Neolithic to the Middle Ages. The most significant site, also inhabited from the Early Neolithic onwards is the Cernokonevo tell on the opposite bank of the Maritsa river, ca. 3 km from the excavations. Large open-air settlements existed from the Middle Neolithic onwards to the south of Yabalkovo in the Armutluka and Sav Kolyov Blok localities, occupying low-lying hilly terrains within an area of over 10 acres. According to the published

<sup>4</sup> Today the river Maritsa runs about 1 km north of the settlement, however, in antiquity its bed was probably closer. This presumption is drawn only from the specific topographical features of the region fixed on maps 1:5000 and is not based on geomorphologic surveys.

information, there should also be a mound nearby (Mikov, V. 1933:85; Aladjov, D., 1997:305) but neither could we localize it, nor do the locals know anything about it, hence, it is obviously confused with the Karabyulyuk-site itself. In the mid-distance, near the village of Zlatna livada, is the only large tell in the region. A quarry is localized in the vicinity, which is source of flints, similar to those of Zlatna livada village and the town of Merichleri, exploited as early as the Early Neolithic (cf. infra). It is not possible to present a review of all later archaeological sites in the vicinity of Yabalkovo here. The available information outlines two concentrations of archaeological monuments – around the Hissarya fortress and the supposed Roman *villa rustica* southeast of the village<sup>5</sup>.

### Methods and strategies of exploration

Because of the huge area with Early Neolithic material, we started digging 5x1 m trenches, with the aim to come upon positive structures, and afterwards to move to full exploration there. Unfortunately, the area had been occupied by oak forests, which were cut down in the late 1950s and the land was ploughed down to 0.70 m, which caused irreparable damage to the archaeological remains. Only the massive accumulations of large stones had preserved the Neolithic debris. No positive results were obtained from the first trenches, north and south of the railway. To the south we covered an area of 12 acres, where gathered a considerable amount of sherds and artefacts, however no structures were preserved in depth. However, in the middle of this zone we came across concentrations of burnt wall plaster, large stones etc., pointing to the presence of better preserved building remains. It was here, over an area of an acre and a quarter that we laid our grid out, excavating 1300 sq. m in 2000. In 2002 this area was expanded and in addition the site was divided into two main sectors – Southwest and Northeast<sup>6</sup>. Afterwards, in 2004-5 we started excavations in Sector North, on the other side of the rail-way. The three sectors have separate topographic schemes and squire-grids, which are easily comparable (Figs. 3-4). Due to specifics of the salvage excavations we failed to link the sectors Northeast and Southwest through trenches: thus the supposition that we are really dealing with one settlement is based only on the comparison of the field scattered materials and not on the tracing of a cultural stratum over the entire area.

<sup>5</sup> A treasure of 40 tetradrachmas of Philip II is a stray find, which should clearly be placed within the context of the Late Iron Age occupation of the Karabyulyuk locality. A Roman sanctuary of Apollo was also located nearby. The traces of Roman buildings with plastic marble decoration (probably a *villa rustica*) could be seen in the Ninjova Chuka hill, about 2 km southeast of the village. A late Roman *reliquarium* has also been found around Hissarya hill. The old name of the village is Almalii ('apple') which is an argument for the identification of the Hissarya fortress as Mediaeval Mileona. A *suburbium* and a necropolis are situated to the north of the fortress (Aladjov, D. 1987: 305-306, with ref.). From a historical point of view, the Gemijata locality situated northeast of the village is of importance, as this was the site of rafts or large boats crossing the Maritsa to take and discharge cargoes. Traditional memories of "cobblestone roads" and 'Old bridges' were associated by natives with the 'Romans'.

<sup>6</sup> Funding was provided by the General Road Agency, Dimitrovgrad municipality and the Sofia University St. Kliment Ohridsky.

### Stratigraphy of the Neolithic cultural layer<sup>7</sup>

The cultural strata in the **Southwest sector** have a max. thickness of about 1.50 m. Except for two bottoms of pits from the 4<sup>th</sup> and 3<sup>rd</sup> c. BC and some sherds of mediaeval pottery, all structures and materials belong to the Early Neolithic period. On the base of the positions of burnt wall plaster pieces and the finds we were able to divide three successive building levels. The floors of the dwellings have not been preserved in the real sense of the word, due to the soil erosion caused by the sloppy terrain and the seasonal waters. Both pottery and burnt plaster pieces have a washed-out surface and are markedly rounded, even extracted from 1 m depth and found *in situ*. The sterile base is compact clay with limestone admixtures.

In the **Northeast sector** the Neolithic layer was covered only by the arable land in those parts of the site, which have not been affected by mediaeval and Late Iron Age interventions. Two Early Neolithic levels were documented through dwelling floors, furnaces and other utilities, which are well preserved. Observations point to the presence of at least one more level. The cultural layer here reaches 1.50 m depth below the surface. Some structures were dug into the virgin soil as it would be seen in the text below. The sterile base at this part of the site consists of clay, pebble, gravel and sand, which shaped a low hill that extends to the Sector North. Yet, we cannot say any concrete word on its genesis – whether the hill and the natural strata are consequence of the flooding from the Maritsa River, or have a proluvial origin.

The stratigraphy of the cultural layer in **Sector North** is very similar to that of the Northeast sector. Up to three building levels from the Early Neolithic period were established here, covered and largely damaged in most places by mediaeval and LIA features. However, the natural base here is different – the movements of subterranean waters and the stages of swamping of the Maritsa valley are clearly detectable in the sections. Only the hill in the centre of the excavated area was protected from flooding. We suppose that the border of the settlement here lies at its north foot, marked by a line of stone wall ruined in several heaps and a long shallow ditch. From chronological point of view, a novelty is the existence of semi-dug structures in the east part of the sector, dated to the very end of the Early Neolithic (Karanovo II period), thus presenting a continuation in the settlement life that is not recorded in other sectors.

### Later materials and structures in the site

Besides the Early Neolithic remains, scarce pottery sherds and small finds from the Chalcolithic and the EBA were recorded, however, out of reliable context. In the same

<sup>7</sup> As in other open-air sites, and mainly due to the poor state of preservation, caused by later disturbance, the stratigraphy of the Neolithic layer could not be presented in a single vertical section but was clarified in separate sections by the juxtaposition of better preserved features, e.g. house floors, hearth and oven basements, etc., and a depth correlation, when appropriate.



time, the excavations, especially in the last two sectors, revealed plenty of features and materials belonging to the historical periods. They are remains of a LIA pit field (6-1 c. B.C.) and a Mediaeval (11-12 c. A.D.) settlement and necropolis.

## II. EARLY NEOLITHIC STRUCTURES

*K. Leshtakov, N. Todorova, V. Petrova*

### Stone structures in the Southwest sector

Several stone structures, badly damaged by soil cultivation and erosion were excavated in the western part of the sector (Figs. 4, 2; 5, 3). We considered them as wall debris covering an area of more than 500 sq. m immediately below the arable land. According to the masonry and the material two types could be discerned. The first consists of crushed stones of medium and small size, with additions of pebbles and large fragments of burnt plaster. It is difficult to judge whether the last represent the upper part of the ruined walls or had been used as building material in the form of *spoliae*. In some places the walls were better preserved; however they rarely reached more than three stone rows. Small platforms made of pebbles, gravel and sand should be seen in functional connection with them. With some reservation they could be interpreted as bases of destroyed fire-places, the plaster of which was erased by seasonal rains and chilly weather. The materials found around and beneath this type of structure positively date them in the Early Neolithic period (Fig. 6, 1-12). In general, the stone walls of the first type encircle an area facing west but we cannot say that they had fenced up any structures, as beyond them at the same level we came across a dwelling from the Early Neolithic period (Fig. 4, 2). Accordingly, at present we could interpret them with caution as the foundations of buildings with special layouts within the inhabited zone. The second type of structures consists of much larger stones with primary stratigraphic position compared to these of the first type. Only one strip of these stone blocks was better preserved and no wall-face could be seen, contrary to the stone foundations of the first kind. The question about the juxtaposition of the two types of stone structures seems to be clear. The large stone blocks are at a greater depth than the others and should be definitely earlier. What supports the thesis that they are not synchronous are their layouts, which form structures with a different orientation. We did not find foundation trenches in the sections, so the deliberate deeper placing should be ignored.

### Dwellings in the Southwest sector

*Dwellings of the first building level in the Southwest sector, sq. O<sub>16-17</sub>.*

House debris corresponded in depth with the stone structures described above; however, they were badly damaged by the deep ploughing of the terrain. The dwelling is rectangular in plan, oriented northeast-southwest. The exposed area is approximately 80 sq. m (Figs. 4, 2; 5, 1). The walls were made of beaten clay; the north-eastern wall had a

stone base. The floor level was marked by a baking pot *in situ*, mortars and some concentrations of pottery sherds (Fig. 6, 15-20). The exact outlines of the dwelling could not be determined. Material here, together with the house-debris is washed-out. The complex includes also two (?) stone platforms; perhaps the bases of fire-places. The trial trenches below the floor revealed at least two successive clay-beaten structures (dwelling's debris?) situated respectively at a depth ca. 0.80 m and 1.10 m, which prove the stratigraphy of the site.

Southwest of the dwelling there were other compact concentrations of burnt wall pieces, which covered an area ca. 75 sq. m. Some of them had the imprints of rectangular beams. However, we cannot say whether they indicate separate premises or are part of the same dwelling.

*Dwelling in the Southwest Sector, first building level, sq. U<sub>12-13</sub>.*

The western part of the dwelling remains beyond the limits of the area under salvage excavations, while the eastern one falls in the west profile of the site. Stratigraphically the house belongs to the first building level and is comparatively better preserved. The debris area is approximately 60 sq. m. Lengthwise it is orientated northeast-southwest and the structure was probably also rectangular (Figs. 4, 2; 5, 2). The floor was not established by certainty, only marked by the position of a large mortar, some pottery concentrations and several small finds *in situ* (Figs. 5, 2; 6, 13-14).

*Data on second and third building levels of the Southwest sector*

The information originates only from trenches, i.e. whole structures have not been fully investigated. Besides the two levels beneath the dwelling in squares O<sub>16-17</sub>, at several other places of the site we came across well preserved pottery sherds, immediately above the sterile layer. Several dug-in features were documented in sq. S<sub>22</sub>-T<sub>22</sub> and R<sub>21-22</sub> at a depth of ca. 0.75 m. Obviously, these shallow irregular pits were formed in the process of digging activities; the terminus of their usage is given by Early Neolithic pottery sherds that have been found inside. Considering the general correlation of the depths of the structures we assigned them to the 2<sup>nd</sup> building level. Pottery sherds with red slip and some finds were also registered in sq. Z<sub>26</sub> and sq. BB<sub>25</sub> at a depth of 1.00-1.20 m from the present surface, i.e. at the level of the 3<sup>rd</sup> building level, bearing in mind the same general stratigraphical sequence. In both instances white-on-red painted pottery was missing, probably due to the small number of fragments collected.

**Early Neolithic Structures in the Northeast sector, first building level**

The uppermost layer in this sector was badly damaged by the mediaeval structures and the Late Iron Age pits. That is why we do not have entire plans of dwellings, but only parts, united according to their stratigraphic position and typological similarity of the material. In addition, we documented several hearth-bases, a complex of three grain storages (*pithoi*) and many chaotic heaps of burnt plaster. The last obviously had been

scattered during the digging activities in later times. The pottery of these structures dated from the Early Neolithic period. The pithoi in sq. K<sub>36</sub> were surrounded by a considerable number of pottery sherds and under them there were numerous finds including several ceramic discs with unknown purpose (Fig. 8).

*Dwelling in Northeast Sector, first building level, F<sub>17-18</sub>-G<sub>17-18</sub>*

The destroyed dwelling area was immediately beneath the surface, and the debris layer is up to 0.70 m thick. The north wall was disturbed by later pits (Fig. 9, 1). The walls were made of beaten clay; the floor was plastered with fine whitish lime substance, entirely covered by charred organic matter (a mat or a carpet). A clay beaten structure, probably composite grain storage (?), was partially uncovered in the central part of the excavated area. Westward there was an accumulation of burnt clay pieces, patterned with relief and painted decoration (over 10 pieces 20 by 40 cm) of meanders and zigzag motifs (Fig. 9, 2). The positive parts of the ornaments are red and black, the negative ones – creamy-white. The reconstruction of the composition (Fig. 9, 3) proposes an organization in vertical panels, whose dimensions are not clear. The pottery in the dwelling is Early Neolithic, including white-on-red painted vessels (Fig. 10).

**Structures from the second building level, Northeast Sector**

The structures of the second building level are comparatively better preserved, although not all over the place. Several dwellings were almost completely excavated, repeating the main features of the first building level described above.

*Dwelling in squares H<sub>17-18</sub>*

Only the north part of the dwelling was partially exposed, the rest remains outside the area excavated. The layout of the dwelling is not clear, however; the excavated part revealed well preserved remains of the north wall (up to 0.60 m height and ca. 3 m long) and a complex of granaries and smaller storage vessels immediately to the south of it. The floor was made of rammed beige-brownish clay. Around the storage complex, a number of house facilities, ceramic vessels and small finds were found including a pair of grinding stones and a collective find of bone tools made of animal ribs. Noteworthy also is the discovery of a large zoomorphic vessel lying on a platform close to the wall (Fig. 11).

*Dwelling in the Northeast sector, second building level, square K<sub>38</sub>*

Only the southwest and northeast walls were better preserved (Fig. 12). They were made of beaten clay, supported by timber beams, but mixed techniques could have been used. The floor was trampled and subsequently plastered over with a white limestone substance. An oven was built up in the central area of the northern part; a *pithos* and a second removable storage vessel were put near it. Next to the oven a tripod with broken leg was found *in situ*.

*Dwelling in the Northeast Sector, second building level, J<sub>38-39</sub>-K<sub>38-39</sub>*

The dwelling was partially preserved due to later intervention, only the southern and eastern walls have been documented (Fig. 13). The walls were also made of beaten clay, and the floor was rammed, plastered over with a white lime substance and partly polished. This dwelling is remarkable for the collective find of two clay horned pieces and a ceramic anthropomorphic figurine (Fig. 13, 1-3). Several vessels were found *in situ* in the dwelling, as well as other small finds (Fig. 13, 4-6).

**Dwellings in the Northeast Sector, third building level***Dwelling in squares G<sub>27-29</sub>, H<sub>27-29</sub> and I<sub>27-29</sub>*

The dwelling is located in the central part of the sector. It is rectangular double-room ground building with an area of ca. 90 sq. m (Fig. 15). Walls were built in *pise* technique and repeatedly plastered with clay. Among the burnt debris massive two-faced wall fragments were unearthed, some bearing clear imprints of timber planks. The house floor was of rammed clay, covered almost everywhere by a thin layer of charred organic matter (mats?). Two hearths have been documented in the southern room. One had a pentagonal shape and carefully smoothed and burnished clay floor. The other one actually comprised of two only partially overlapping hearth basements, the lower one corresponding well to the house floor level and the upper one probably to the succeeding building level. The dwelling facilities also include a round-shaped pithos found in the southern room and a rectangular tripartite clay-beaten feature in the northern room, most probably grain storage container; similar but less preserved features are recorded in both rooms. The inventory consists of two stone mortars built in the floor, some grinding stones and many stone and flint tools, of which noteworthy is a stone pestle covered by red ochre (Fig. 15, 1). Most of the ceramic vessels were found along the west and the south walls of the dwelling, obviously originally standing on wooden shelves. Coarse 'kitchen' ware clearly predominates in the pottery assemblage.

*Dug-in structure in sq. K<sub>40</sub>-K<sub>41</sub>*

A half of dug-in structure was revealed in the easternmost part of the sector. It is rectangular in shape and goes down ca. 0.60 m into the virgin soil (Fig. 16). The excavated area is ca. 12 sq. m. It was with grey-blackish filling, rich in charred organic matter. The floor was rammed yellowish clay. Walls were originally plastered by clay, as normal dwelling walls. A complex of two *pithoi* and a stone mortar was situated in the east part of the structure. The inventory includes fragmented ceramic vessels, a small white-on-red painted 'tulip-shaped' cup, an intact bone 'spoon', two stone pestles (Fig. 16, 1-4) and a number of fragmented bone implements. For the time being, we suppose that the structure was a subterranean part (with storage and food preparation functions) of a ground building, as suggested by the poorly preserved superstructure wall connected with a deep pillar-pit in the north-west corner.

## Structures in sector North

### *Dwelling in squares I<sub>35-36</sub>/J<sub>35-36</sub>, second building level.*

Comparatively well preserved part of a dwelling was excavated in the central part of the area, at a depth 0.55 m below the present-day surface. The layout is rectangular, orientated northeast-southwest, and dimensions are 7 to 5 m at least. The walls were made in clay-bitten technique. The floor was of rammed and slightly burnt grey-brownish clay covered by 0.05 m thick layer of carbonized organic matter. Among the interior features, best conserved was a square hearth fenced with clay-beaten border and two periods of functioning. Originally, the hearth was built on a basement of middle-size crushed stones and a 0.10 m thick layer of clay. Over the first plaster, a 0.15 m thick layer of pebbles and clay was put and the top surface plastered carefully with light brownish clay (Fig. 19). A complex of granaries and other storage utilities was uncovered south of the hearth, and a stone mortar lies nearby, built in the floor. Some sherd-concentrations were revealed on the floor, including several vessels of coarse kitchenware.

### *Freestanding facilities*

Several hearth basements and isolated floor-spots were plotted at different places. They could not be associated with certain dwellings. These outdoor features may be interpreted as seasonal places for food preparation, 'cookhouses' functionally related to the nearest dwelling (Fig. 17).

### *Semi-dug structure in sq. I<sub>46-47</sub>/J<sub>46-47</sub>*

The structure was recorded at a depth of 0.5-0.70 m beneath the surface as an irregular formation of darker brown soil with higher concentration of tiny clay plaster particles and ceramic sherds. After cleaning, we established that the shape is irregular ellipsoid and dug down the virgin soil to 0.40/0.45 m. The floor was uneven with slanting walls. Within the structure and along its periphery smaller pits were clearly detectable and some of them are obviously bases for wooden pillars (Fig. 20). Stone mortar and some other big stones supported one of them. Traces of poorly preserved hearth-place with stone basement were also recorded. The character of the structure and the quantity of the wall debris suggests a lighter construction. The suggestion, that these ruins are left by collapsed storage or subsidiary hut should not be neglected. Washed-out fragments of shallow bowls, deep bowls and cups with vertical handle ending with plastic projection all point to a date after the period of Karanovo I.

### *Surrounding ditch and wall*

Concentrations of middle-size and small crushed stones were unearthed in sq. H<sub>46-47</sub> at a depth of 0.5 to 0.7 m below the modern surface. They formed a strip 1.0 to 1.5 m wide and 8.5/9 m long (Fig. 21). Within it, there were heaps of tightly packed stones and pebbles as well as burnt wall debris and pottery sherds. After cutting the west section of

sq. H<sub>46</sub>, a ditch was observed north of the stone unit. It is deep ca. 0.80 and not less than 1.50 m wide at the top, U-shaped in section, according to the available information. It is too early for any positive conclusions as the complete investigation of both structures is forthcoming, although it might be suggested that the stone features and the ditch mark the north border of the settlement.

### Material and techniques of construction

Several types of building material were used in the construction of dwellings of the Early Neolithic – stones, clay with admixtures, sand and wood. The use of stones was already described and it should be only pointed out that this is the first case-study in the Upper Thracian Early Neolithic. We have to outline that the Neolithic inhabitants have used this material in two different techniques only for the lower part of the walls. Probably the walls were raised in height with a wooden structure of beams and clay, pressed in planks. This technique similar to that known as *pisé* occurs rarely in the East Balkan Neolithic. There are several observations that allow us to claim the mass-usage of this technique in Yabalkovo. The wooden construction in this case consists of vertical beams fixed into the ground at a great distance – up to 1 m, contrary to the posts of wattle-and-daub constructions, which have smaller diameters and are more densely fixed. Wattle-and-daub constructions are plastered on both sides with clay coat up to 0.15 m thick and when such a dwelling is fired and ruined the walls fall down in pieces with two faces, separated by the wattle, in which sticks had left clear negatives. The plaster itself is light; whatever is added is chiefly organic matter. Only grain stores and some other house facilities in Yabalkovo were built in this manner. *Vice versa*, the house walls in Yabalkovo were built of heavy clay with only inorganic admixtures – quartz sand and gravel in different concentrations. The wall-pieces are heavy, compact, and without any trace of wattle in the middle<sup>8</sup>. There are also some examples of wall fragments, where the imprints of broad planks on both faces are preserved. As for the timber use in construction work, here we find an advanced technology in carpentry. Besides round posts with various diameters, which are typical for prehistoric Upper Thrace, the Early Neolithic inhabitants of Yabalkovo were able to prepare well elaborated square and rectangular beams as well as boards of various thicknesses. Clearly, they were split, however, the imprints show evenly smoothed surface and well shaped right angles.

The narrow passages between houses were covered with gravel and sand. What is unusual here is the colouring with red ochre in large scale, recorded both in Sectors North and Northeast. In some places several successive levels of ochre were observed, which testify for a long and well established tradition.

<sup>8</sup> When we removed the wall-foundations of the house in sq. J<sub>38-39</sub>/K<sub>38-39</sub>, we found out that the bases of the beams had been stabilized by diagonal rods with diameter ca. 2-3 cm. In the higher part of the wall such imprints were absent.

The floor of the dwelling in squares J<sub>38-39</sub>-K<sub>38-39</sub> deserves special attention. It was made of trampled hygroscopic clay, and afterwards plastered over by a thin layer of white lime substance with small limestone and quartz intrusions. Due to burnishing to a shiny surface the floor has reached the hardness of a hearth-base. This technique is a novelty for Upper Thrace; clearly, it was not a common practice, as elsewhere the white matter was only rammed and levelled.

### III. POTTERY

*K. Leshtakov*

A brief description of the ware is already given in the literature (Leshtakov, K 2004). Here we should point out only its main specifics.

Not a single white-on-red painted sherd was found in the Southwest sector. However, the surface of most of the sherds is badly damaged and those with preserved slip are few. For that reason, the absence of painted ceramics could not be used as a decisive argument in chronological sense. On the other hand, the wares in better condition had passed through secondary burning, thus the original colours had been lost. In general, the structure of the clay-paste is customary for Upper Thrace; the three main technological groups are recognized, namely fine, semi-fine, and coarse ware. From a functional point of view we could apply the tested classification of vessels for serving and drinking, for food preparation, for storage of food and liquids or *tara*. Traditionally, the tripods are listed in the group of the small terracotta finds, as well as the terio- and anthropomorphic containers, which form a separate group of ritual vessels. Another group comprises of the stationary granaries (*pithoi*), which are an inevitable part of every Neolithic dwelling together with the flat baking vessels or braziers (Fig. 6, 20). They are included in the group of house-facilities.

The pottery repertoire is simple in structure and from a formal point of view consists of bowls, pots, cups and tulip-shaped vessels and containers (Fig. 22). Bowls are quite uniform in shape (Fig. 22, 1-11). Elongated S-shaped profiles of deep bowls were not documented, neither are bi-conical shapes known so far. The rim is rounded, slightly turned outward or softly profiled. Decoration includes plastic bands with fingerprints, fluting, fine dots and white-on-red or white-on-bordeaux/brown painting in isolated cases (Figs. 14, 1; 22, 7-8).

Pots have short cylindrical necks, well shaped straight or oblique shoulders, large bodies, and solid and heavy bases (Fig. 22, 14-16). Small 'knob-handles' are placed on the pot-bodies and there is fluting or dotted decoration around them (Fig. 23, 11). Pots vary in size – from the *pithos*-size (Fig. 12, 3) to small containers of fine fabric (Fig. 10, 9). The common decoration is plastic (Figs. 10, 11; 11, 2; 13, 6; 22, 16), however, there are cases of incised patterns, fluting and very rarely – 'impresso' (Fig. 6, 9) and white-on-red painting.



The so-called tulip-shaped vessels prevail in the group of fine ware (Figs. 6, 13-14, 17-18; 10, 6-8; 14, 2-11; 22, 12; 23, 8, 14-16). Their walls are several millimetres thick and are coated by a dense red or red-brown slip usually in combination with white painting (Figs. 10, 6-8; 14, 2-11). Some vessels are representatives of the dark fine ware and are decorated with plastic knobs and fine fluting, and we have no reasons to claim a later date for the last (Fig. 22, 12).

Another group of rare vessels that deserves special attention consists of rectangular containers of different form (Fig. 23). One almost complete example represents a footed box-like container or 'pyxis' with multiple decorative patterns and four vertical holes for suspension (Fig. 23, 2). The closest parallels, although not exact, may be found in the so-called 'Fikirtepe' box-like vessels regionally focused on the eastern coast of the Sea of Marmara (Schwarzberger, H. 2005:255 ff., Fig. 2-3, with ref.). The second example is larger, red coated and decorated with incised angular pattern (Fig. 23, 4). Although sharing a general resemblance with the 'Fikirtepe' vessels, unlike them it is footless.

The next techniques of decoration can be listed here: plastic bands with fingerprints, knobs, incised lines, fluting (two types – fine and broader channels), *pointillé*, *kerbschnitt*, '*impresso*', and white painting. There are also several stray sherds with dark-on-red patterns, which may be regarded as an exception confirming the canon. The motifs, in as much they are seen on whole vessels and larger fragments are spiral lines, meander, chess-board ornament, and their combinations (Fig. 10, 6-8; Fig. 14). Little can be said about the entire ornamental compositions. Only on some vessels do we find a fully preserved or restored composition: connected spirals in fluting technique on the lower part of the body of a bowl (Fig. 22, 7); pointed dots in zigzag lines also in the lower part of another bowl (Fig. 22, 8), a system of slanting plastic bands on bowls and pots (Fig. 13, 5-6) or crossing plastic bands (Fig. 7, 15).

#### IV. SMALL FINDS

*K. Leshtakov, V. Petrova*

##### **Small finds of stone**

The stone inventory from Yabalkovo consists of ground and polished stone tools (Figs. 7, 16-23; 25), grinding stones and mortars, and a small group of adornments. There is a detailed description only on the polished tools here<sup>9</sup>, while the other implements should be marked in passim. Grinding stones were found in many contexts, usually near hearths or *pithoi*. Stone mortars, often built in the house floors, have served for crushing

<sup>9</sup> Cf. the part written by O. Özbek in the report.

of foodstuff or powdering minerals (for example red ochre and malachite<sup>10</sup>) with the help of conical stone pestles (Figs. 7, 19-23; 15, 1; 25, 15-18). Oval or circular pestles (Fig. 11, 3) were used in stone and flint processing, while stone polishers made of river pebbles were used in pottery production.

A unique find presents a stone pendant, discovered on the floor of a dwelling in sq. K<sub>36</sub>, second building level. It is made of light grey-greenish stone<sup>11</sup>; the shape is flat in section with four wing-like projections and a hole in the middle, well smoothed and highly polished surface (Fig. 27, 10). The item is broken and evidently wears very long time on clots. Similar items made of precious or semi-precious stones are known from other Early Neolithic sites in Bulgaria and elsewhere (cf. Hansen, S. 2003 for recent systematization), but the closest parallels are maybe these from Kărdzhali (Pejkov A. 1986:208ff, Fig. 2-3) Kovachevo (Perničeva L. 1990:167, Fig. 14.3), and Azmashka mogila (Höckmann O. 1968:100, Taf. 19, 1088), all in South Bulgaria.

### Small finds of bone and horn

Among the bone tools most numerous are awls and needles, different in form and size, with or without pierced end (Fig. 26, 1-7). Chisels made of hollow bones with remarkable standardization in form and dimensions are well presented (Fig. 26, 22-28). Bone artefacts, made of animal ribs and usually designated as smoothing tools or spatulas, show considerable variety in form and probably in function (Figs. 11, 5-6; 26, 12-14). Noteworthy are the intact and fragmented bone 'spoons' (Figs. 16, 1; 26, 18-21) typical for the repertoire of the Balkan Early Neolithic (Georgiev, G. II. 1958:373-6, Abb. 4-7), and assigned by some authors to a 'well-defined Anatolian set' in the process of neolithization (Perlès, C. 2005:278ff). The best preserved example comes from a primary context – it was found together with a small pot and a fragmented bowl at the bottom of a subterranean structure in sq. K<sub>40</sub>-K<sub>41</sub>, nearby two *pithoi* and a stone mortar (Fig. 16, 1). In this case we tend to connect the bone find with the pot, perhaps used as a container for special spices, and not with the mortar. Bone was used also for preparation of other items, presented by single examples at the site, such as hooks, borers and tools of unknown use, which demonstrate high level of elaboration (Fig. 26, 8-11, 15-17). An interesting peculiarity of bone assemblage from Yabalkovo is the almost complete absence of horn and antler artefacts, which highly confirms the bone analysis reported below. The only exception is a horn tool with blunt point, used probably as a flint *retoucher* (Fig. 10, 3).

<sup>10</sup> During the excavations we came repeatedly upon small pieces or crushed substance of copper ore (malachite), in some cases with visible traces of thermal processing.

<sup>11</sup> According to the geologists' expertise the raw material is identical with that of the Kardzhali pendant but before a tin-section and microscope analysis is made, the sort could not be determined positively.

## Terracotta small finds

### *Tripodes and figurines*

Numerous complete and fragmented tripods were found in the course of excavations. The context of only two is clear – they are from dwellings of first and second building levels in sector Northeast. The later one (Fig. 18) was built beneath a stone platform in a small shallow pit, in the immediate proximity of a hearth from the dwelling in sq. K<sub>39</sub>. The position of the find gives us reason to consider that its placing had been deliberate; prior to this the tripod had been broken<sup>12</sup>. The tripod from the second building level (dwelling in sq. K<sub>38</sub>) was found almost intact, only with a leg broken off (Fig. 12), in the context of a grain store and an oven, on a platform of organic material. A small white stone polisher was used in place of the missing leg, a curious detail which fixed the primary position of the find.

The only intact mini-tripod comes from a dwelling context but because of the poor state of preservation of the structures there nothing more could be said about the association of the find (Fig. 10, 2). Considering the numerous legs and broken pieces of tripods, we could point out the uniformity of the decoration – almost all of them have chess-board ornaments with a few exceptions (Fig. 27, 11-17).

A number of small zoomorphic figurines were found including two almost complete pieces, clearly representing a bull, while it is difficult to define the rest due to their state of fragmentation. In spite of the miniature dimensions they are examples of exceptionally careful modelling (Fig. 27, 5-8). Noteworthy are also two zoomorphic vessels – containers. The large one, modelled in the form of a bull, was found ritually ‘killed’ among the debris of a dwelling in sq. H<sub>17</sub> (Fig. 11, 1). The second is a mini-container (Fig. 27, 7). The closest parallel of the bull-shaped vessel is known from Rakitovo (Raduncheva, A. et al. 2002:140, Fig. 24), while the mini-container has analogues in Early Neolithic sites in West Bulgaria and the Central Balkans (Tschochadshiew, M. 1981:Kat.No.70); Karmanski, S. 2005:44, Pls. XL, XLI).

Among the ceramic plastic the greatest attention deserves one coming from a dwelling, sq. K<sub>39</sub>, second building level (Fig. 13, 1). The steatopigic female figurine was found in the eastern part of the dwelling, placed or fallen on the polished ‘*terrazzo*’ floor, together with two ceramic horned objects (Fig. 13, 2-3). The statuette is almost complete – only one hand is missing. It represents a seated female figure, with massive exaggerated buttocks, carefully shaped by two separate pieces (so-called bipartite kind). The head is modelled in details, yet the torso and the breasts were not given the same attention. Contrary to most of the known Early Neolithic examples, the head of this one has eyes,

<sup>12</sup> It is very curious to note that the missing leg was found in one mediaeval pit far away from the dwelling (ca. 15 m). It seems that after the breaking operation the leg remained in the settled territory of the site. Contrary to this situation we found a clay pintadera, usually interpreted as an item of ‘high status’, in the rubbish zone of the site, where all dishes out of use were discarded.

rendered by incised line, while the cheekbones are underscored in such a way, that the impression of tattoos is given. Hair falls freely in waves on the back, while the highest part of the head is held by something resembling a bun of coiled hair or a small cap, marked by incised lines and a row of small fine dots on its back. We should emphasize the similarity of the silhouette with Anatolian examples, recently summarized by M. Özdoğan (2001:317). The parallels are numerous but only as a general impression. The details – head, face and hair, have better parallels in the Central Balkan Early Neolithic, for instance in Kovachevo and elsewhere (Makkay, J. 1993:76-77, Fig. 1a-c, 77, Fig. 2c-d; Lichardus-Itten, M., J.-P. Demoule, L. Perničeva et al. 2002:125; Demoule, J.-P., M. Lichardus-Itten 1994:601, Fig. 15, 2). Nevertheless, the Anatolian connection might be supported by horned objects made both in clay and stone<sup>13</sup>. To this group of finds belong also plastic representations of human bodies or separate parts (face, arm) applied on the walls of ceramic vessels (Fig. 27, 1-4), as well as a fragmented clay object in the form of a shoe, probably part of a big hollow anthropomorphic vessel (Fig. 27, 5).

A single terracotta find discovered in a secondary context exemplifies the clay seals – so-called *pintaderas* – a typical item in the Balkan Neolithic repertoire. The find from Yabalkovo has a rectangular base with zigzag stamping motif (Fig. 27, 9) which is among the most popular ones used for stamping with many good parallels (Báčvarov, K. 1999:69, T. 4.7)

### *Loom weights*

Clay loom weights are also present at the site. The collection includes a small number of intact and fragmented pieces of two main types – conical with round or oval base and flat ovoid, both pierced in the upper part of the body (Fig. 11, 4, 7; 15, 3; 26, 29-31). Both types have good parallels at other Early Neolithic sites in South Bulgaria, for instance Rakitovo (Raduncheva, A., et al. 2002:Abb. 31, Abb. 6). The absence of more than one weight *in situ*, as well as the diversity of forms and size of the finds gives grounds to the idea that weaving, altogether practiced at the site, was concentrated in isolated places probably beyond the excavated area.

## V. THE FLINT ASSEMBLAGE FROM YABALKOVO

*R. Zlateva-Uzunova*

The flint collection from Yabalkovo contributes to our knowledge on the technology, typology and raw material basis of the Early Neolithic flint industry in Thrace. A total of 1199 artefacts are included in the present study (Table I). The **flakes** are the dominant type in the quantitative composition (45%), followed by **retouched**

<sup>13</sup>A horned object crudely shaped in stone was found below a fireplace from the first building level in the Sector Northeast, not illustrated here.

**tools** (18.2%), **blades**, **bladelets** and their fragments (16.2%). **Cores** are considerably less frequent (5.2%). The percentage of natural forms without traces of exploitation, the indeterminate fragments and the fragments of flint pestles is relatively high (15.4%). There are pieces in initial stages of processing (13.8%). Bilateral and less frequently one-sided crests are used as a main means of preparation. Single platform cores are prevalent (43.2%; Fig. 28, 1-2). Double platform cores (15.5%; Fig. 28, 3) and these with changed orientation (13.7%; Fig. 28, 4) are less numerous. There are also five indefinable core fragments (8.6%, Table II).

**Blades** are presented by 167 examples. The complete artefacts prevail; and 28 examples are intentionally fragmented. 30 items bear use-wear traces. Most numerous is the group of 30-40 mm in length, followed by the groups of 20-30 mm and 40-50 mm. Artefacts of more than 50 mm are rare. Dominant are blades obtained from single platform cores with convex or straight flaking platforms in advanced stage of exploitation. As a rule, they are detached with the help of an intermediary. Double platform core blades and blades from plunging are presented by single examples.

**Bladeletes** are presented by 10 artefacts; all obtained from single platform cores by pressure, no cortex preserved.

**Flakes** – a total of 411 pieces: 363 complete items and 9 intentionally fragmented. Dominant are flakes of irregular form, multifacet sections and strait profiles. Sections are mostly triangular, trapezoid and semi-ellipsoid are rare. Most of the flakes are obtained from single platform cores, less frequent are those from cores with changed orientation, while flakes from double platform cores are exceptions. Spatial analysis shows that a considerable part of the manufacture process took place out of the dwelling places.

**Retouched tools** (Table III): **End-scrapers** – a total of 20 (10%; Fig. 28, 5-7). Prevalent are examples on blades with vault front parts. Most items have semi-steep to steep/high bilateral retouch; blanks are oriented towards the dorsal surfaces. The group includes also four double-scrapers, two atypical, one fan-shaped. **Combined tools** – 8 items (4%; Fig. 28, 10). The group is presented by burins on retouched blades and backed blades, splintered pieces on fragments of retouched blades. **Perforators** – 13 items (6.3%; Fig. 28, 4). The group consists of ten typical, five atypical and one combined example. Points are well made by steep to semi-steep retouches. **Borers** – 4 items (2%; Fig. 28, 8-9). All are typical – on blades and flakes, bilateral steep/high retouch. **Backed tools** – 2 pieces (0.9%; Fig. 28, 15); on blade and bladelet, steep retouch. **Truncated tools** – a total of 18 tools (8.8%; Fig. 28, 11-13); they are mostly on blades and bladelets. **Retouched blades** – 80 pieces (39.2%; Fig. 28, 19, 20). Dominant are tools with bilateral steep/high retouch, followed by unilateral and alternated retouch. Semi-steep retouched tools are rare. **Notched tools** – 9 pieces (4.4%; Fig. 28, 16). Five on blades and four on flakes, semi-steep retouch. **Splintered pieces** – 3 examples (2%; Fig. 28, 7). Bipolar – two on flakes and one on a blade. **Retouched flakes** – 29 examples (14.3%; Fig. 28, 21-23). Dominant are flakes with semi-steep and alternated retouch. **Segments** – 1 example (0.4%; Fig. 28, 26); on a blade fragment, with unilateral semi-steep to steep retouch and a convex edge. **Trapezes** – 2 examples (0.9%; Fig. 28, 24-25); on a blade fragment and a

flake, with oblique truncations. **Side-scrapers** – 9 examples. (4,4%; Fig. 28, 18); on flakes – four transversal, four lateral and one of sub-type “déjetés”. **Discs** – 3 examples (2%; Fig. 28, 27-28). They are with large semi-plane, semi-covering retouch in the central part and splintered retouch towards the edges.

The highest percentage is that of blade tools measuring 30-40 mm in length, 10-20 mm in width and 5-15 mm in thickness. Preferable for tool manufacture are semi-fabricates of larger width and thickness, which are poorly presented in the debitage, due to the extensive use of high/steep retouches.

The petrographic analysis of raw materials from Yabalkovo provides data for eleven varieties of flint, three of opal, opal-chalcedony and chalcedony, single types of jasper, zeolite and quartz. The predominant percentage of raw materials with identified origin comes from deposits within the Upper Thrace and Sredna Gora regions (59.4%), followed by the silicate deposits in north Bulgaria (14.0%) and the East Rhodope palaeogenic depression (13.3%). West Rhodope varieties are not numerous (8.3%).

The composition of artefacts is close to most of the Early Neolithic assemblages in the Upper Thrace. Peculiar for Yabalkovo collection is the domination of flakes, as well as the comparatively high percent of cores. Another specific is that a considerable part of the operational chain for flake production and manufacture of flake tools took place in the settlement. Blades and blade tools are made mainly of non-local raw materials, suggesting that they were imported as finished items or semi-fabricates. Dominant types of tools are retouched blades and flakes, as well as end-scrapers, followed by perforators, side-scrapers, truncated tools, borers and combined tools. Burins, backed tools, splintered pieces are rare. High/steep retouches prevail, and this tendency occurs also in other contemporary collections (Zlateva, R. 1995; Gatsov, I., V. Kurcatov. 1997; Gatsov, I., M. Gurova. 2001). Among the specifics of Yabalkovo material are artefacts on bladelets, pointed blades and treating of the ventral surfaces, geometric microliths. Contemporary parallels of the last items are found in the East Rhodope Mountains (Zlateva-Uzunova, R. 2004) and Northwest Bulgaria (Zlateva-Uzunova, R. 2005); later parallels are known as well (Gatsov, I. 2004:69ff). Discs have no direct analogues among the published assemblages from Bulgaria. Similar artefacts are known from the Near East and Anatolia (Rosen, S. 1997). Worth noting is that a similar mode of secondary processing as that of the discs is applied on some of the retouched flakes.

Part of the assemblage characteristics is identical to that of the Early Neolithic collections from settlement mounds (Gatsov, I. 2004; Gatsov, I., M. Gurova. 2001; Zlateva, R. 1995). However, the materials have a number of peculiarities that may be due to the location of Yabalkovo in the contact zone between Upper Thrace and the Eastern Rhodopes (Zlateva-Uzunova, R. 2004).

## VI. TYPOLOGY AND TECHNOLOGY OF POLISHED STONE TOOLS FROM YABALKOVO

O. Özbek

The preliminary study of polished cutting tools from Yabalkovo consists of sixty-three objects, which can be classified as *celts* in traditional terms.

**Description.** The length of the tools is between 15 mm and 129 mm; the width varies from 13 mm to 65 mm; and the thickness values are from 7 mm to 44 mm. In brief, two major length groups are observed in Yabalkovo – one from 40 to 60 mm and another from 80 to 100 mm. The mass values are between 6 gr. and 607 gr., divided in ten mass groups. The group 0 to 50 gr. dominates the others, followed by the group 50 to 100 gr. Length and mass values point to a general preference to small objects. The ground stones from Yabalkovo were tested to see if there is a preference for Length to Width ratio. The overall ratio stands out at the value of  $\frac{1}{2}$  for about fifteen tools. For the main group of objects the length values does not exceed more than twice the width values. Cutting edges (extremity distals) are preserved on 60 of the analyzed items. Of these, 63 % had a convex form, which means that the polished cutting tools are in typical condition ready to cut surfaces. This also shows that 63% of these tools were re-sharpened and were ready to be used. Only six of them had flat edges<sup>14</sup>.

**Typology.** For the studies on typology we schematized the general forms of the celts to find out the differences. The main types are axes, adzes and chisels (Fig. 25). We would like to present another tool type, which we refer to as “hoe” (Fig. 25, 11). In strict sense, this tool is defined as a thin, flat blade set across the end of a long handle, used for soil-working like digging, weeding or loosening. This last tool type may not find great support among our colleagues<sup>15</sup>. Among the polished stone tools we observed similar objects and we suggested naming them as “hoes” although with caution, for we need further use-wear analyses and experimental work<sup>16</sup>. From statistical point of view, thirty-one of the total number fall into the group of adzes (49% Fig. 25, 1, 4-8), thirteen examples fall into the group of axes (20% Fig. 25, 9-10, 12-14), four items fall into the group of chisels (6% – 25, 2-3). Four items are tentatively defined as hoes (6%). Some tools (17 % of the objects) were labelled “celts” indicating their uncertain determination.

**Technology.** Yabalkovo material has the following apparent traces of production techniques: *pecking, pounding, sawing and polishing* as stages of the *chaîne opératoire*. Only a few of the pieces have traces of flaking which may indicate reshaping after an accidental break. This process may not be accepted as a part of the initial stage of

<sup>14</sup> All observations were made with the naked eye and a magnifying glass with a 5x to 10x magnification without using microscopes. Further analysis will be done in the future on traceology of Yabalkovo ground stone tools.

<sup>15</sup> We suggest that this kind of tool may have been used for agricultural purposes. In order to use such a tool for soil, one may use heavily worn or broken pieces of axes or adzes and biggest ones were preferable (Özbek 2002).

<sup>16</sup> In accordance with our observations on Yabalkovo material, the hoes are characterized by the wear traces on their edges, which are much blunted with regrinding marks on these ends. The surfaces of the edges are broken and flake removals are usually seen. This we believe to have happened because of the work with the soil.



production. As already pointed out, the preliminary analysis in this paper includes only finished products. However, there are three rough-outs in the assemblage that show clear marks of flaking without any trace of sawing aiming blank reduction.

The examples showing rounded and eroded cavities frequently on one of their surfaces support the hypothesis that the blank forms of some of the tools were pebbles collected from river beds.

The technique of sawing, applied in the initial shaping of the blanks in ground stone tool production, was recorded in different studies on the Neolithic in Europe (Giot, P.-R. 1952, Cordier, G. 1987). According to some researchers, this technique was attested only in certain periods of the Neolithic in some regions of France (Ricq-de Bouard, M., C. Buret 1987)<sup>17</sup>. However, this is not the case with the Yabalkovo tools. Two adzes and a chisel bear clear signs of sawing on one or two sides of their surfaces. These traces are parallel to the longitudinal axis of the pieces. Only one of the tools has a sufficient size to create a second tool after sawing (adze: 72 to 36 mm Fig. Fig. 25, 4). As the sawing technique is not frequent in Yabalkovo, the reason for this operation may be to economize the raw material and to create a new tool. As the tool size diminishes, these smaller tools may have functions different from tree felling<sup>18</sup>. Evidence of sawing may also indicate the preciousness of certain types of raw materials. This was the case in many other Neolithic sites in Europe. In Turkish Thrace, the Neolithic Hoca Çesme site yielded the same type of examples bearing sawing marks. According to petrographic studies, these tools were produced from exotic raw materials (Özbek 2002). On the other hand, the tools manufactured from the common raw material found in the vicinity of the settlement bear no signs of such traces. As the experimental and ethnographic studies suggest, sand is an effective abrasive agent during the sawing of the stone surface (Kelterborn 1991); the same material might have been used in Yabalkovo. In order to obtain the necessary friction force, organic substances like rope or wood would be effective means to cut the stone. We must also bear in mind that the hardness of the raw material is directly related to the length of time for this operation (Pétrequin A. M. and P. 1990). Accordingly, two main initial production techniques – grinding and pecking – could be supposed in Yabalkovo. Although flaking should have been done for the general shaping of the tools, we can not see the clear traces in this case-study. However, grinding (or coarse polishing) and pecking have left many traces on the tools.

Pounding on certain parts of the tools is generally accepted as a preparation for hafting, its roughness being supposed to allow a better adhesion of the blade to its haft. It is generally applied after the polishing process is finished. According to ethno-

<sup>17</sup> This technique is mostly present on the banks of the Swiss lakes starting from the Middle Neolithic period (Buret C. 1983, Willms C. 1980).

<sup>18</sup> Small-sized celts are often argued to be non-functional objects as funerary gifts or exchange items. However, when small-sized celts are first mounted to antler or horn sleeves and then hafted with wood, they may have been used for other purposes as skinning hides.

archaeological studies, this is not always the case. For example, A.- M. and P. Pétrequin show in a study on the axes and adzes from New Guinea that the same blades can be left unpolished or, on the contrary, entirely polished before they were hafted. They also deduced that the effectiveness of the tools does not change too much without pounding for hafting (Pétrequin A.-M. and P. 1990).

Pounding was applied on certain parts of the Yabalkovo artefacts. Polishing process is normally carried out by friction on a mineral abrasive matter, as sand, sandstone or molasses. The back and forth pressing leaves easily locatable traces at the edges, in the form of large, fine, and parallel scratches. Yabalkovo tools demonstrate polishing of high quality. Most of the sides are polished and on some of the tools pounding was applied on the sides in order to maintain a good hafting. By traces of hafting, we understand all the detectable indices of the objects that provide information on the way these blades were fixed. Such traces are visible only by large scale magnification under microscopes. Until now, we did not observe any unambiguous trace on the hafting of the tools. However, the future analysis will tell us more on the subject.

## VII. ARCHAEOBOTANICAL REMAINS

*Tz. Popova*

**Database and methods.** A total of 123 flotation samples and 189 burnt wall plaster fragments have been analysed, all from Sector Northeast. The quantity of the floated material for each sample is ca. 20 l, taken from different archaeological contexts: ceramic vessels, *pithoi*, floors, hearths, pottery and stone concentrations, as well as post-holes. After flotation macrofossil material was dried, sorted and identified with the help of a Bosch microscope.

**Analysis of charred seeds and fruit.** The samples from the Early Neolithic dwellings show a wide variety of plant species. The contents of a vessel found inside a dwelling in sq. F17 include einkorn (*Triticum monococcum* L.) and emmer (*Triticum dicoccum* Schrank.), bread/club wheat (*Triticum aestivo/compactum* Host.), millet (*Panicum miliaceum* L.), lentils (*Lens culinaris* Medik.), as well as some fragments of oak charcoal (*Quercus* sp.). The sample collected nearby another vessel from the same dwelling produced single seeds of bread/club wheat and hulled barley (*Hordeum vulgare* var. *vulgare*). The same composition we observe in the contents of a clay bowl from sq. J<sub>32</sub>/J<sub>33</sub> – barley, einkorn and bread/club wheat. The sample taken from the hearth floor in sq. G<sub>19</sub> gave a single seed of barley. Some weed seeds of garden sorrel (*Rumex crispus*) were found in a pottery vessel from sq. J<sub>40</sub>/K<sub>40</sub>.

Sampling of *pithoi* contents gave the following results: only a few fragments of oak were found from a pithos in sq. H<sub>29</sub>/H<sub>30</sub>; a pithos in sq. H17 yielded fragments of oak's wood and a corn-cockle seed (*Agrostemma githago*); a single seed of bitter vetch (*Vicia ervilia*) was identified in a pithos in sq. H<sub>18</sub>.

Noteworthy are also the samples taken from house floors. They contained only charred wood material. Oak is dominating, other species include maple (*Acer cf. campestre*), alder (*Alnus sp.*), and poplar (*Populus sp.*).

Samples were analyzed from post-holes in dwelling J38-39/K38-39. They yielded charred fragments of Austrian pine (*Pinus nigra*) and oak. Around the post-holes stray seeds of einkorn and lentils are discovered.

Species composition from the dwellings is shows that eleven species are determined, including five cereals, two pulses, two fruit-trees, and two weed plants. The way of distribution of the plant remains points to accidental depositions; no concentrations of food supplies have been found. In general, the quantity of seed remains is minimal. Dominant are einkorn and emmer, which is typical for the period of the Early Neolithic.

**Burnt wall plaster and pisé fragments analysed.** A representative number of burnt plaster and pisé pieces were collected from the wall debris of Early Neolithic houses. After close examination a total of 392 plant impressions were detected with clear prevalence of cereals. Dominant are einkorn impressions, followed by barley. There are single examples of emmer, rye and brown grass. Frequent also are ears of wild cereals but the impressions are too unclear to allow determination of type.

Collecting wild plants. They are represented by only two examples – a seed of grape and cherry fragments. The exact identification of the cherry as a domesticated or wild species is too risky because we have only fragments from the pericarpus without clear morphological features. The grape seed is most probably of the wild species *Vitis vinifera spp. sylvestris* Gmel.

**Weeds.** Some weed plant remains were detected in the samples. Most of them belong to garden sorrel and fat hen (*Chenopodium album*). The last is a typical ruderal species, distributed often with the manure. Corn-cockle is also present, very often it falls among the wheat crops, for the two plant are equal in height.

**Analysis of carbonized wood.** Ca. 110 fragments are identified belonging to eight species: oak *Quercus petraea* L., *Quercus robur* L., Austrian pine *Pinus nigra*, maple *Acer cf. campestre*, alder *Alnus sp.*, poplar *Populus sp.*, elm *Ulmus sp.*, hornbeam *Carpinus sp.* and beech *Fagus sp.*. Oak is dominant, followed by pine. These arboreal species give valuable information for the overall vegetation of the region. Evidently the site was surrounded by oak forests, their composition supplemented also by maple, hornbeam and Austrian pine. Beech was gathered from the hills; poplar and alder grew along the river valleys and were obviously more accessible.

The archaeobotanical study of Yabalkovo shows that the cultivated plants are typical for the Anatolian complex of this period. Species composition is similar to that recorded in many Neolithic and Chalcolithic settlements from Bulgaria – Karanovo Madrets, Stara Zagora – Municipal Hospital (Popova, Ts, 1998; 2001) and Kapitan Dimitriev (Marinova, E. 2001). Charred wood remains show a wide variety of deciduous

vegetation. The identified species of oak, elm, and hornbeam form the composition of the deciduous forests. This association is typical for wet and warm climatic conditions.

### VIII. ANIMAL REMAINS (PRELIMINARY RESULTS)

*N. Spassov, N. Iliev*

The study is based on a small sample of the animal remains of the site – ca. 700 bone fragments from sure Early Neolithic contexts. The material is highly fragmentary and difficult for identification, which is due to several reasons: to some extent, bones are destroyed naturally during the taphocenosis itself, but the main reason, is in the archaeological context – bones are obviously ‘kitchen middens’. They are broken by the Neolithic inhabitants to very small particles for maximal extraction of nourishing substances (including medulla). Many of them bear signs of heat treatment (burning, partial charring) that are another argument for the interpretation of the faunal remains as food scraps.

Dominant are bones that are more resistant – fragments of metapodials, tibias and distal parts of humeri and femurs (very rarely entire compact bones as astragals and phalanxes). Frequent also are the mass bones of the animal skeleton – ribs, vertebrae and teeth. All this testifies for the use of the entire carcass and not of selected parts. Bones are intentionally broken to pieces by smashing (a primitive technique of processing). The analyzed bone remains bear no positive signs of sawing or special techniques of disarticulating the carcass. Both adult and juvenile/subadult individuals of caprovines and bovines were used for food consumption (no reliable age group ratios are possible at the moment). Domestic pig is presented in the assemblage more frequently by young individuals.

Species composition of the analyzed material is as follows: domestic pig, sheep, goat and cattle. Only a few bone fragments suggest the presence of wild mammals as aurochs and a single one – of red deer. Two hedgehog bones are identified but their colouring suggests a later date (hedgehog holes may have disturbed the archaeological layer). The faunal remains contain also four bird bones. A peculiarity of the sample is the absence of dog bones. This fact may be due to the restricted number of studied bone material, since dog remains are usually less frequent than those of other domestic animals.

This fauna composition is rather unusual and shows the presence of exclusively domestic animals.

Regarding the breed features of the faunal remains, the following observations are made: sheep and goat, as well as pig species are represented by very small size breeds that are typical for the Balkan and Anatolian Neolithic and Chalcolithic (Vassilev, V. 1985; Spassov, N., N. Iliev 1994). Specimens of the small (brachycere) cattle are recorded that is also typical for the period. Only separate bone fragments belong to larger individuals. The extending of the data base would clarify whether they belong to large bulls of the same breed, to aurochs or if they are evidence for *primigenius* cattle and/or its crossings.

Caprovines are dominant in the sample. This feature, according to some scholars, is diagnostic for the Early Neolithic on the Balkans (Bökönyi 1992) and provides arguments for the relation of local cultures with those of Asia Minor (suggested migrations from the east)

Based on this small sample from the bone assemblage of Yabalkovo, several preliminary conclusions could be made, as follows:

- Accumulation of animal bone remains at the site is connected with the use of animals for food (the bones are clearly 'kitchen middens'). The applied technique for meat and bones treatment seems rather archaic.
- Regarding the use of animal resources, subsistence strategies of the Early Neolithic inhabitants of Yabalkovo site show one specific and rare feature, namely, comparatively primitive animal husbandry and absence of evidence for hunting activities. This inference is preliminary and may be influenced by the restricted number of studied bones.
- Stock-farming is relatively primitive and together with breed types of the raised animals it shows features typical for the Balkan Early Neolithic and most probably of Anatolian influence or origin.

## IX. DISCUSSION

*K. Leshtakov*

This report is not intended to consider all Anatolian parallels of building techniques, wall-painting, tools, chipped-stone industry, the figurines etc. Beyond any doubt, they exist and what we could humbly say here is that the new data evidently support the general conclusion of the heterogenic nature of Anatolian parallels (both in chronological and regional sense) as some other parts of the Balkan Peninsula. These 'random' parallels could be explained anyway even if we take the latest conception of the neolithization of the Southeast Europe yet (Perl  s, C. 2001, esp. 52-63).

Focussing the attention on this case study we ought to say that any attempt for archaeological generalization of the empirical data would be a precipitance at the current stage of our knowledge. The problem of the precise chronological juxtaposition of the structures in the three research zones at Yabalkovo remains unresolved as we know only the zone of the latest Early Neolithic occupation and we can say nothing on the correlation of the Sectors Southwest and Northeast. If they are synchronous and belong to one settlement unit, this would be the largest Early Neolithic site known in Upper Thrace to this day. The alternative, namely that the settlement had expanded through time, regardless of where its primary core was situated, raises the important question about why some settlements in Upper Thrace had turned to tells, while the inhabitants of others had preferred to build up new dwellings in the immediate vicinity of the ruined ones. Obviously, such pattern was followed not only in the Early Neolithic and there are

numerous examples that support this. The existence of two settlement types in one and the same micro-region without sub-ordination – Yabalkovo flat settlement and the tell near Zlatna livada (more than 12 m high now) does not prove the idea for the crucial role of the ecological environment as a main factor in the settlement-pattern formation. Obviously, there are other factors as well, such as social tradition, supplying strategies, and concrete economic circumstances, yet the arguments in this respect should clearly be examined after profound archaeological and scientific studies.

Concerning the date of the Early Neolithic pottery, the most significant elements for dating are white-on-red painting, high hollow stems, ‘knob-handles’ and comparatively simple profiles of the bowl-rims. A somewhat later date could be proposed for the fine fluted tulip-shaped vessel, some ornaments around the knob-handles, etc. Thus, it seems acceptable that the second phase of the Early Neolithic period does not only exist in the Sector North. And *vice versa*, there are no solid arguments at present in support of the thesis for an earlier stage of Neolithic than Karanovo I present at the site. Here we have to mention the special chronological position of the fluting on red slipped vessels, incised ornaments etc., already discussed in the literature (Leshtakov, K, 2004).

As it is well argued elsewhere, the white-on-red painted pottery is an emblematic feature of Karanovo I horizon in Upper Thrace. By the presence of this typical decoration on common shapes we could judge for the chronological position and cultural attribution of the Yabalkovo-Karabyulyuk site. Close parallels in white-painted patterns can be easily found in the nearby Early Neolithic sites of Simeonovgrad, Kărdzhali and Krumovgrad (Raduncheva, A. *et al.* 2002:225-243, Taf. 1-5; Nikolov, V. 2001:57-103, Taf. 114-151) and also in Tsiganova mogila near the village of Dositeevo (Leshtakov, K. 1997a:15-28, Stefanova, T. 1997: 29-52, Fig. 6-18) and Klisselika-tell (Leshtakov, K., T. Kancheva-Russeva and St. Stoyanov 2001:16-17, 32-34, Fig. 2-4). It is possible to point out parallels of the tripods, ritual vessels, white painting and some other items also in Central- and West-South Bulgaria – in the Early Neolithic sites of Rakitovo (Raduncheva, A. *et. al.* 2002:Abb. 59-60, 63, 76, 91-93), Kovachevo (Demoule. J.-P., M. Lichardus-Itten 1994:573-574, 577-578, Fig. 15-16, 18-21A; Lichardus-Itten, M. J.-P. Demoule, L. Perničeva *et al.* 2002:118-122, 123-126, Pl. 11-15, 22), Pernik (Čochažiev, M. 1983), and elsewhere in the Sofia plain. Moving to the south we can find an excellent data-base for correlation of the evidence at the upper levels of Hoca Çeşme site (Özdoğan, M. 1999:205-207, 217-220, Fig. 9-13, 26, 37-41). All parallels listed above could define the place of the Yabalkovo site in the Early Balkan Neolithic milieu and from the other hand outline the strong Anatolian influence – not only in the pottery repertoire but in the general cultural assemblage having traits, which are incognito or alien to the Upper Thracian tells like Karanovo, Kazanluk or Azmashka mogila, even if one has in mind as a contra-argument the insufficiently detailed field publications of these emblematic tells.



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## Tables

Technological groups	Number	~%
Cores	58	5,2
Flakes	503	45,0
Blades and bladelets	181	16,2
Retouched tools	204	18,2
Others	173	15,4
<i>total</i>	<i>1119</i>	<i>100</i>

Table I. Composition of the flint assemblage from Yabalkovo

Type	Number	~%
Pieces with traces of coring	7	12,1
Flakes with traces of coring	1	1,7
Single platform cores	25	43,2
Double platform cores	9	15,5
Cores with changed orientation	8	13,7
Pre-cores	3	5,2
Indeterminate core fragments	5	8,6
<i>total</i>	<i>58</i>	<i>100</i>

Table II. Typology of cores in the flint assemblage from Yabalkovo

Typological groups	Number	~%
End-scrapers	20	10,0
Combined tools	8	4,0
Perforators	13	6,3
Borers	4	2,0
Backed tools	2	0,9
Truncated tools	18	8,8
Retouched blades	80	39,2
Notched tools	9	4,4
Splintered pieces	3	2,0
Retouched flakes	29	14,3
Segments	1	0,4
Trapezes	2	0,9
Side-scrapers	9	4,4
Discs	3	2,0
Retouched natural flakes	1	0,4
Indeterminate fragments of retouched tools	2	0,9
<i>total</i>	<i>204</i>	<i>100</i>

Table III. Typology of the retouched tools in the flint assemblage from Yabalkovo

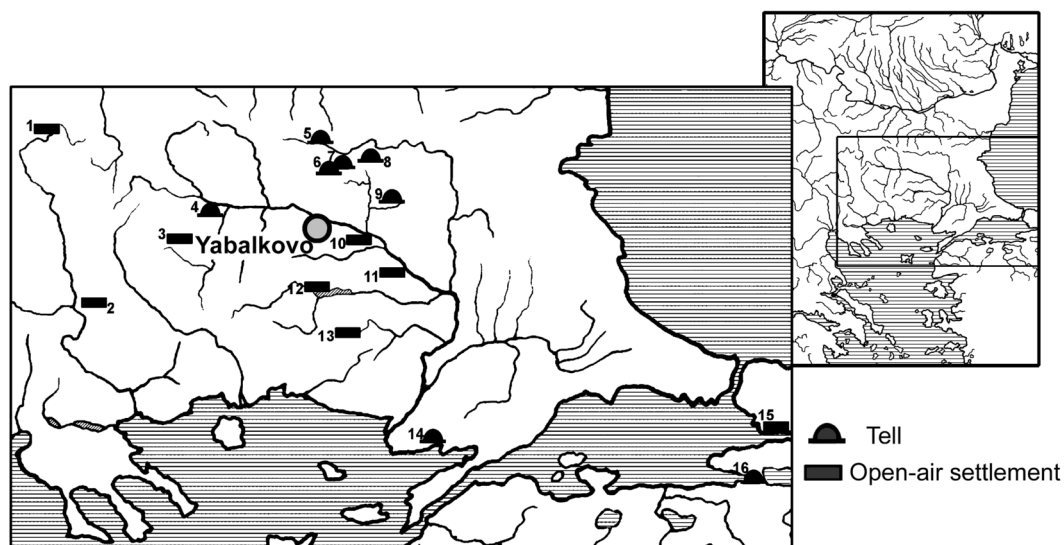


Fig. 1. Map of the Early Neolithic sites mentioned in the text

Pernik; 2. Kovachevo; 3. Rakitovo; 4. Kapitan Dimitriev; 5. Kazanluk; 6. Stara Zagora; 7. Azmashka mogila; 8. Karanovo; 9. Klisselika; 10. Simeonovgrad; 11. Tsiganova mogila; 12. Kardzhali; 13. Krumovgrad; 14. Hoca Çeşme; 15. Fikirtepe; 16. Ilıpınar.

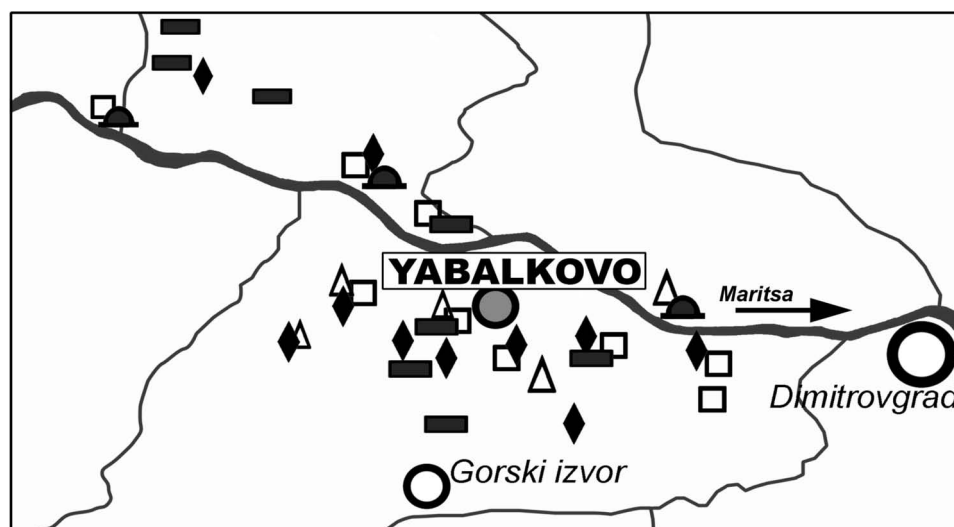


Fig. 2

- |                           |                   |
|---------------------------|-------------------|
| Tell                      | Roman site        |
| Prehistoric open-air site | Mediaeval site    |
| Iron Age site             | Modern settlement |

Fig. 2. Map of the major archaeological sites in the region of Yabalkovo.

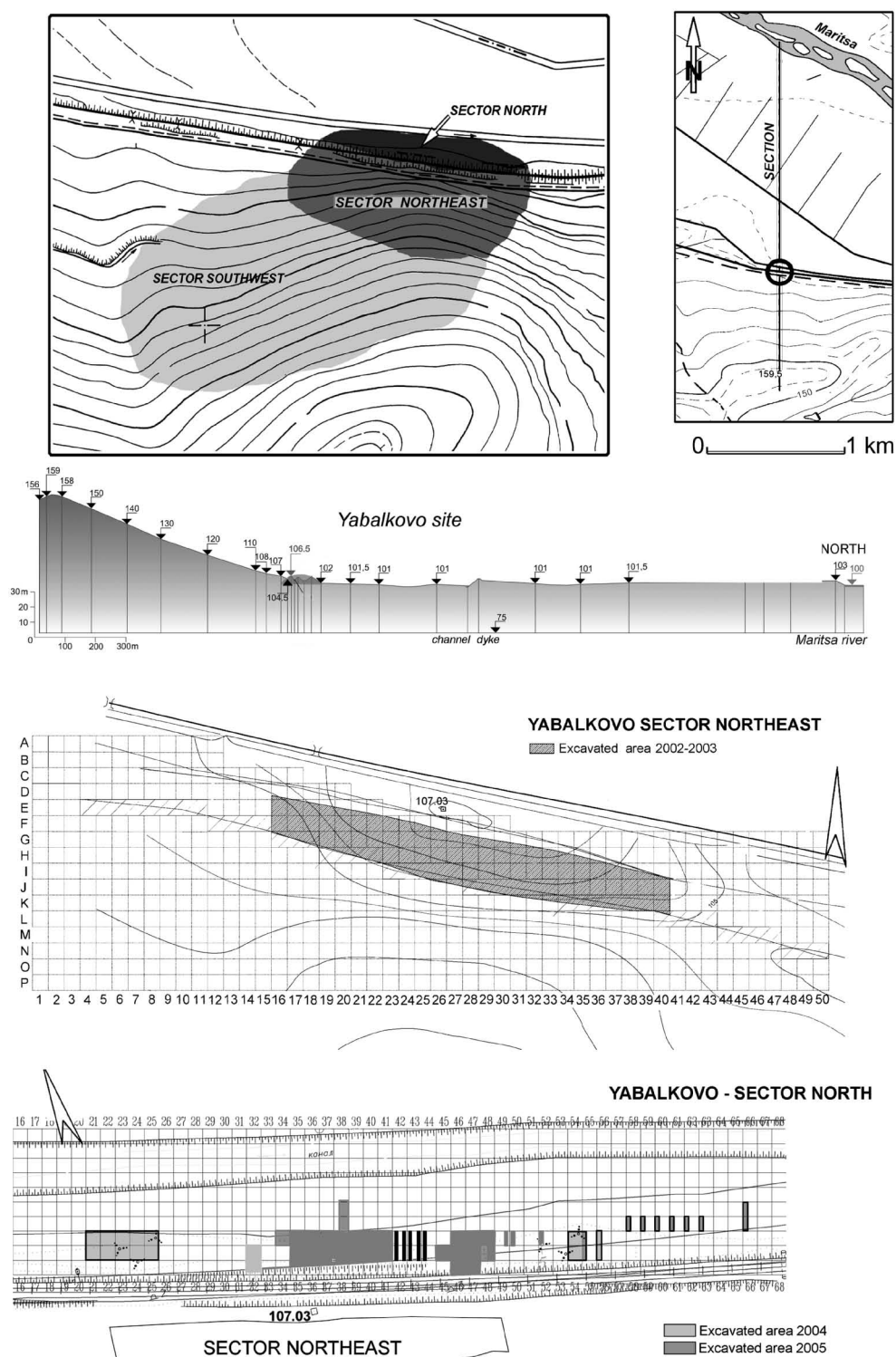


Fig. 3. General topography. Square grids and excavated area of Sectors Northeast and North.

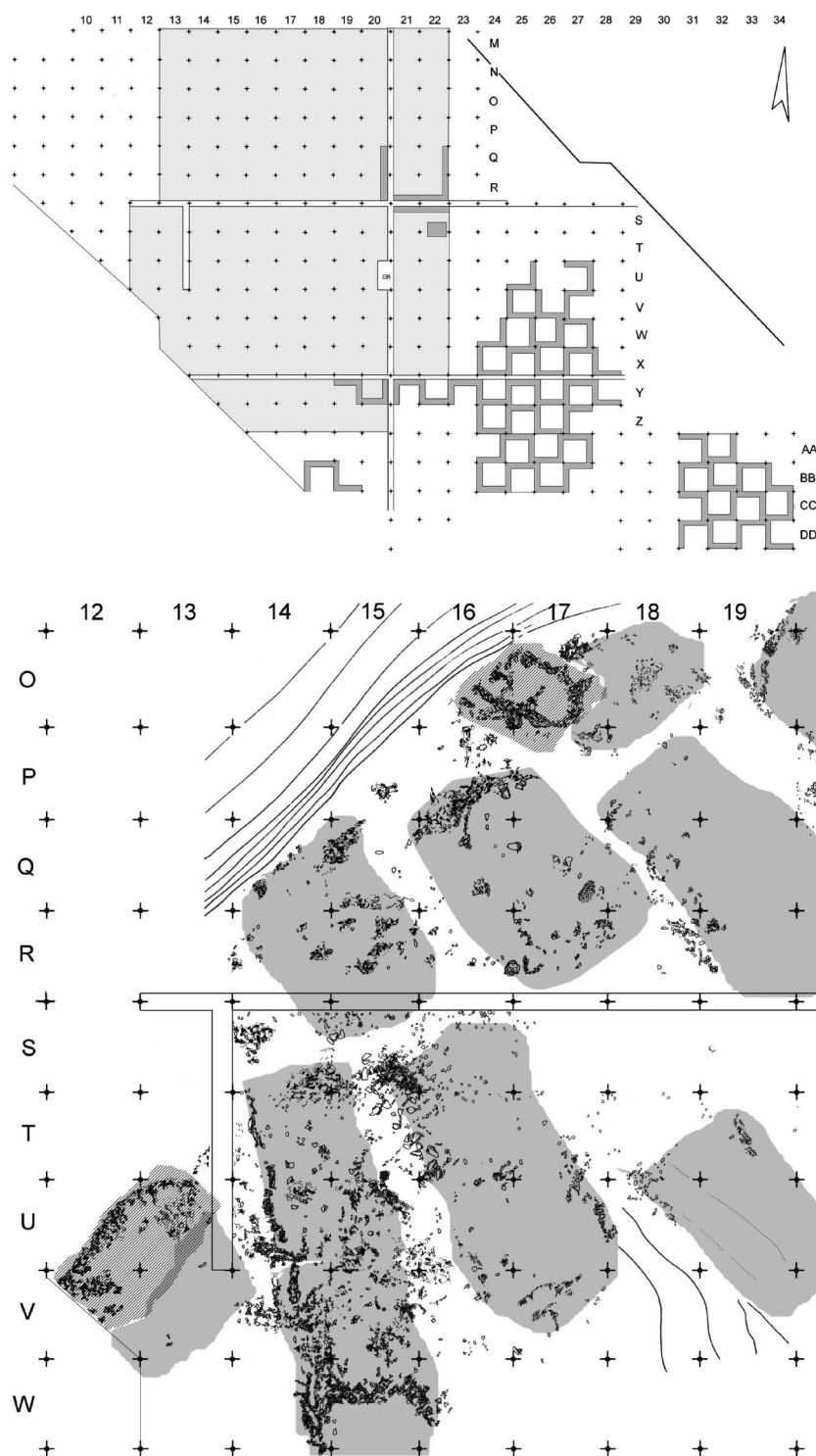


Fig. 4. Sector Southwest. 4.1. Square grid and excavated area. 4.2. General plan of structures – first building level and tentative reconstruction of the building schema.





Fig. 5. Sector Southwest. 5.1. Dwelling in squares O16-17. 5.2. Dwelling in squares U12-13 and V12. 5.3. Stone structures.



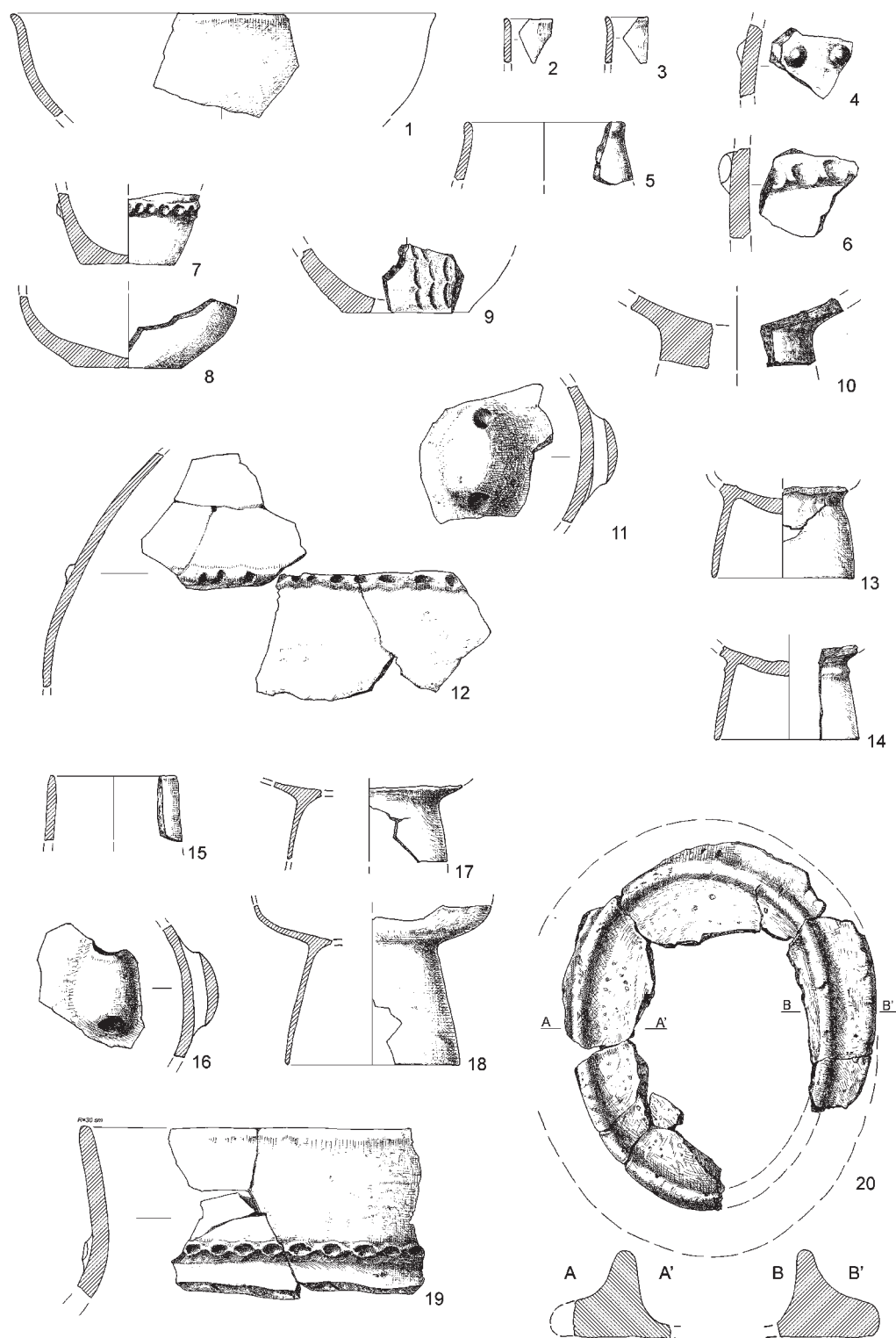


Fig. 6. Sector Southwest. Pottery from dwellings and stone structures. 1-18 – Scale 1:4; 19, 20 – Scale 1:5.

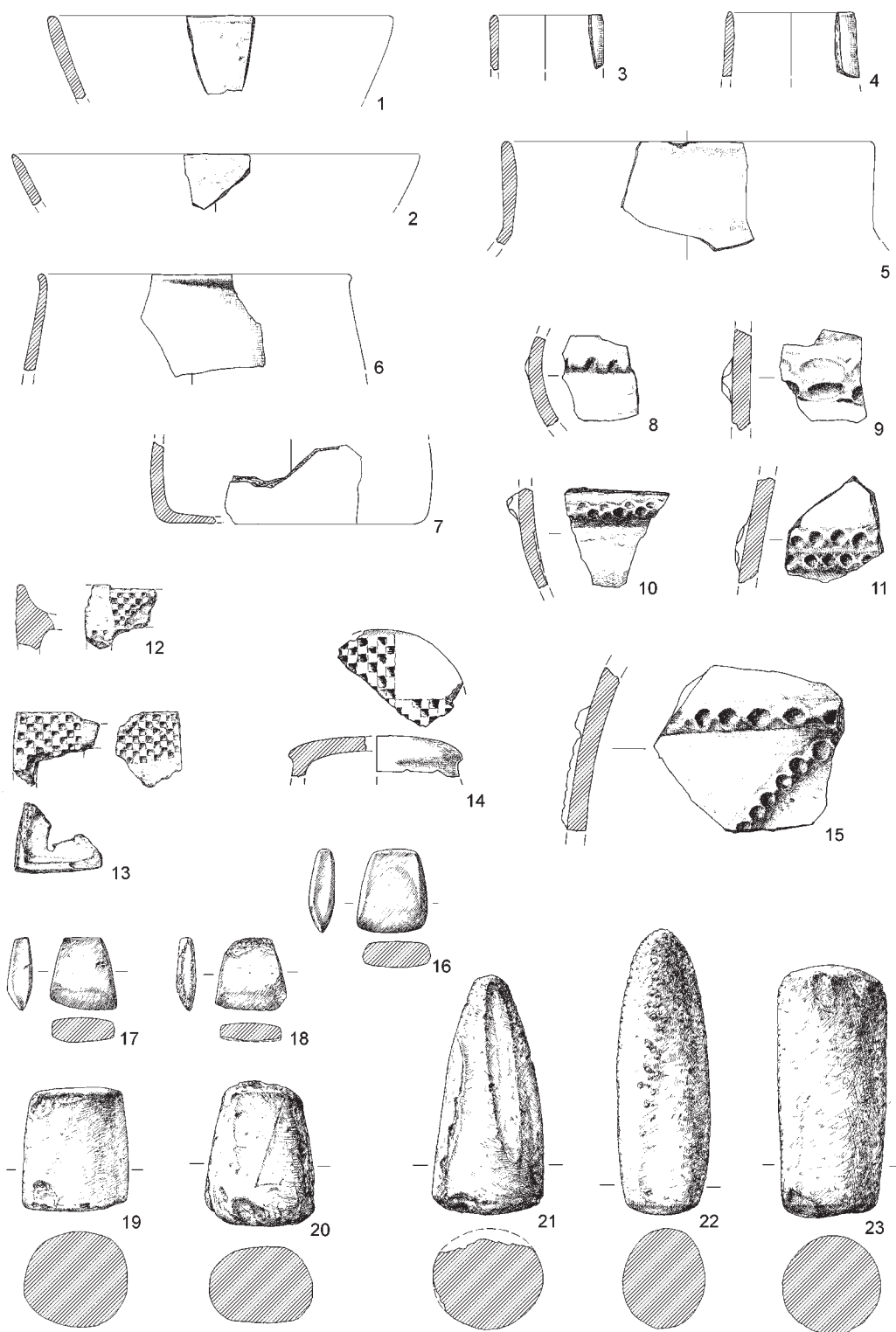
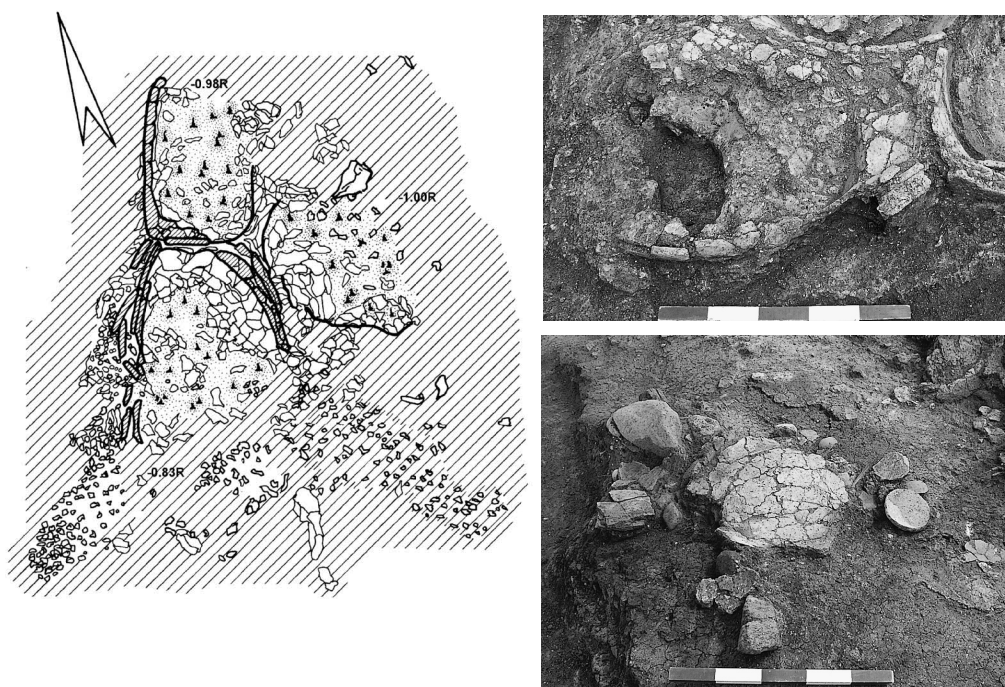


Fig. 7. Sector Southwest. Pottery and small finds. Scale 1:4.



### LEGEND

	Grey-brownish loose cultural layer		House walls in situ
	Brown compact cultural layer		Collapsed wall debris
	Dark brown compact cultural layer		Plastered wall debris
	Dark brown compact layer mixed with wall debris		Shapeless wall debris
	Dark brown-blackish loose earth		Hearth/oven floor
	Light brown rammed clay		Hearth/oven clay basement
	Light brown rammed clay with wall debris		Pithoi and other storage facilities
	Pit filling		Stones
	White polished floor		Pottery sherds
	Whitish trampled floor		Pebbles
	Red ochre		Post-holes
	Ashes and charcoal		Timber beams
	Charred organic matter		Virgin soil

Fig. 8. Sector Northeast. Complex of three pithoi in sq. K36.



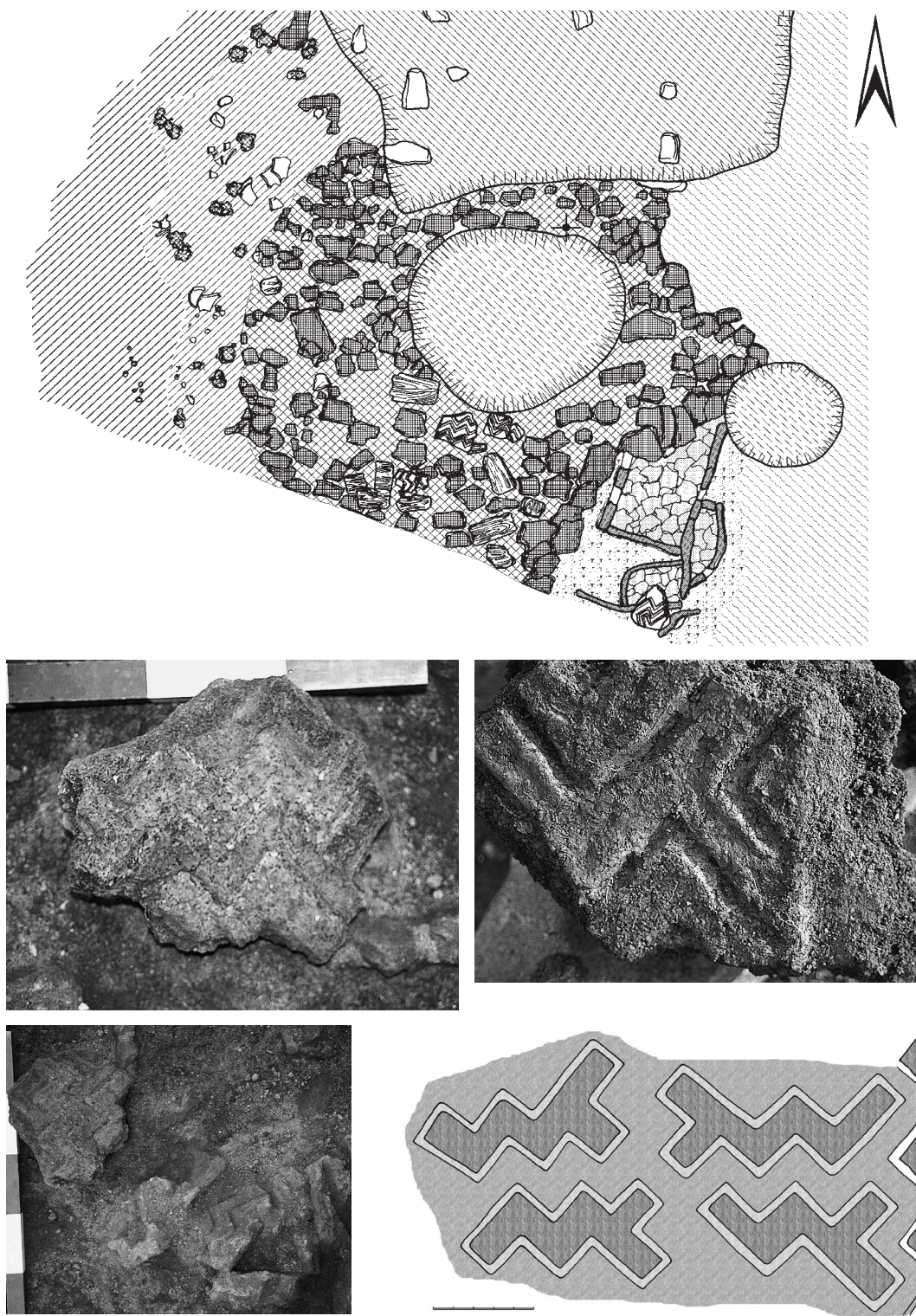


Fig. 9. Sector Northeast. Dwelling in squares F17-18 and G17-18, first building level. Decorated wall plaster pieces and reconstruction of the pattern.

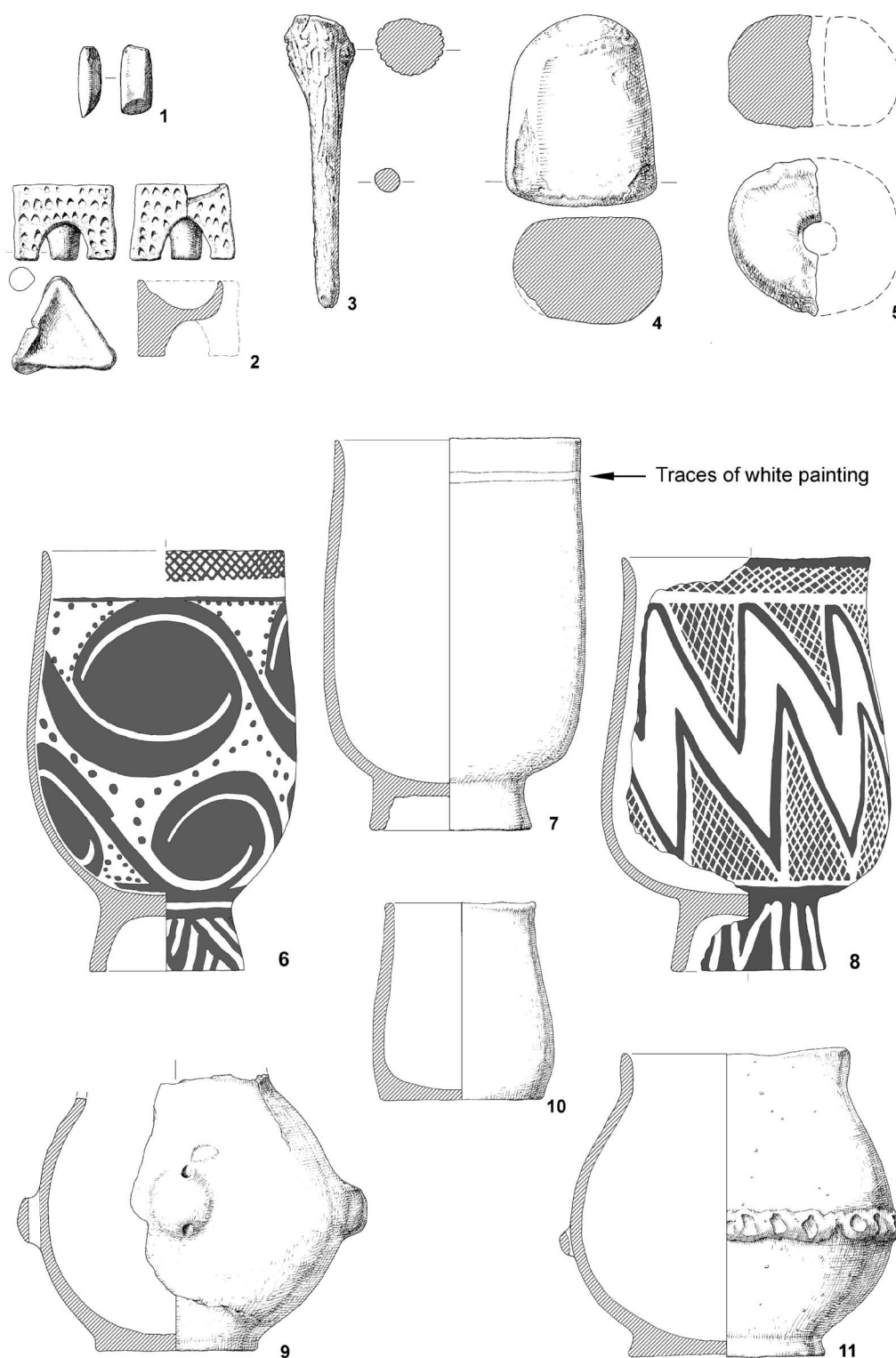


Fig. 10. Pottery and small finds from dwelling in squares F17-18 and G17-18. Nos. 1-5 – Scale 1:3; 6-11 – Scale 1:4. Nos. 6, 8: the red coating is in dark, white painting – in white.



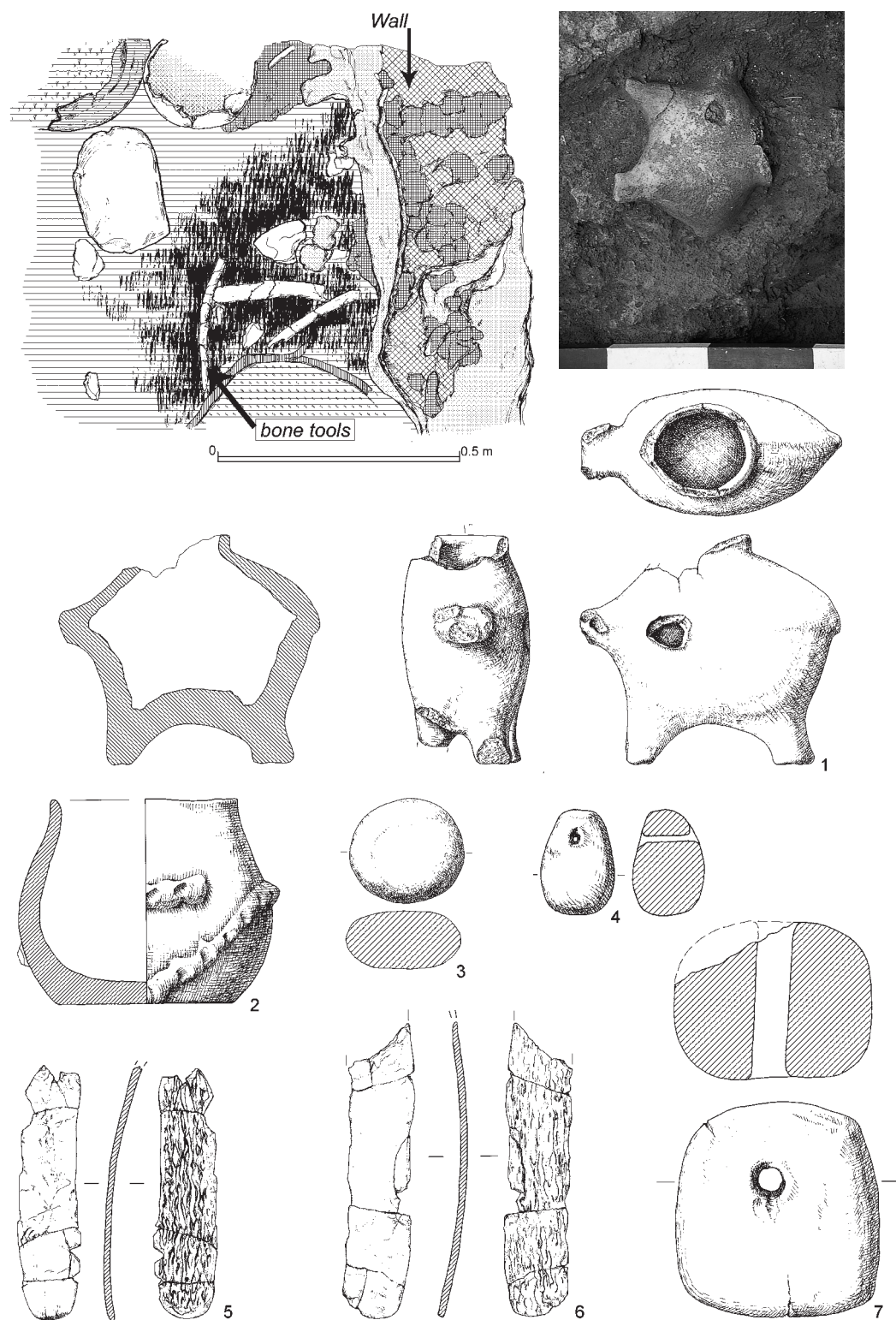


Fig. 11. Sector Northeast. Dwelling in squares H17-18, second building level - detail. Small finds and pottery from the dwelling. Nos. 1, 2 – Scale 1:4; 3-7 – Scale 1:3.



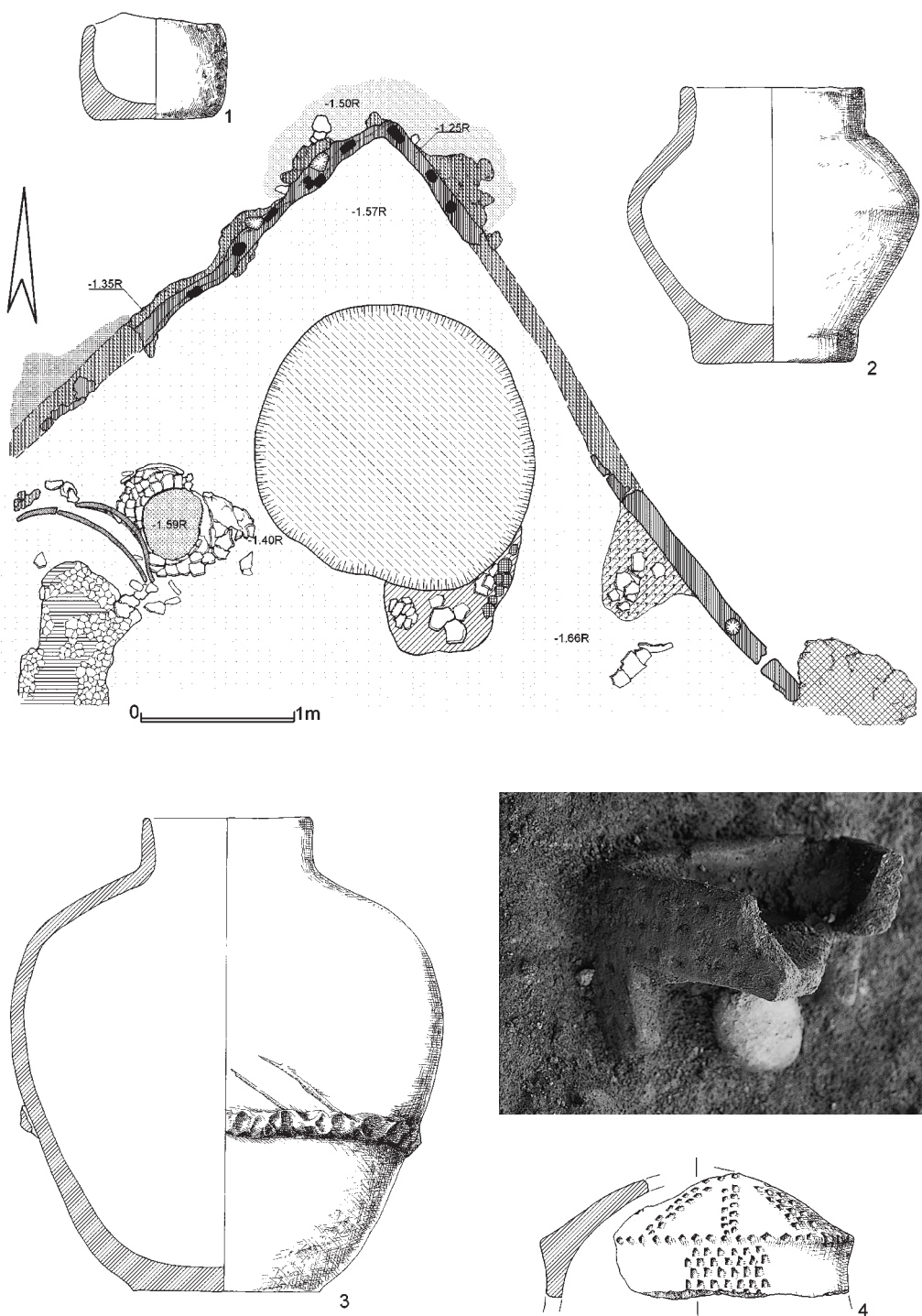


Fig. 12. Sector Northeast. Dwelling in sq. K38, second building level. Tripod in situ, vessels and a lid from the dwelling. Nos.1, 2, 4 – Scale 1:4; 3 – Scale 1:6.

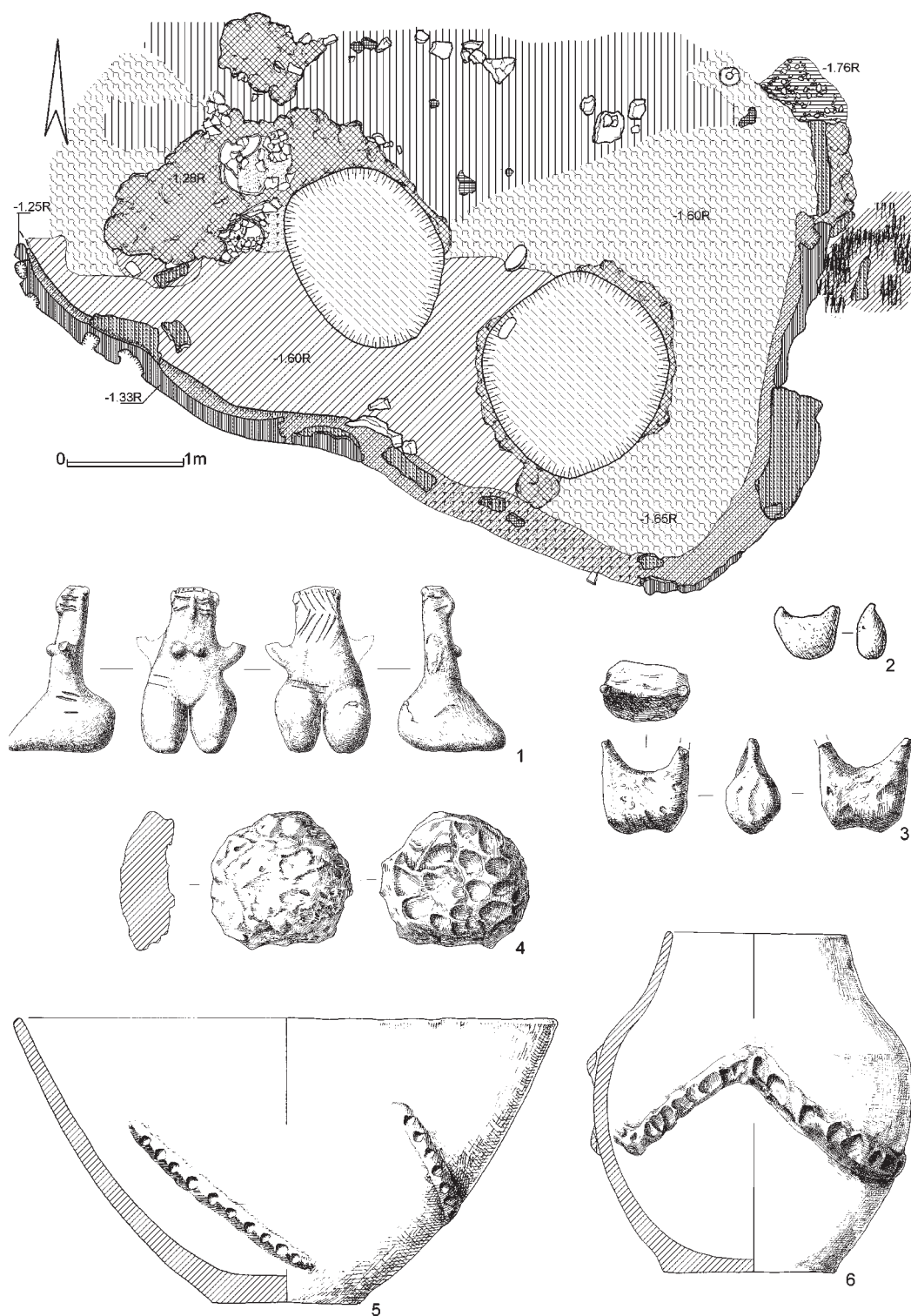


Fig. 13. Sector Northeast. Dwelling in squares J38-39 and K38-39, second building level. Finds and pottery from the dwelling. Nos. 1, 3, 4 – Scale 1:3; 2 – Scale 1:2; 5 – Scale 1:5; 6 – Scale 1:4.

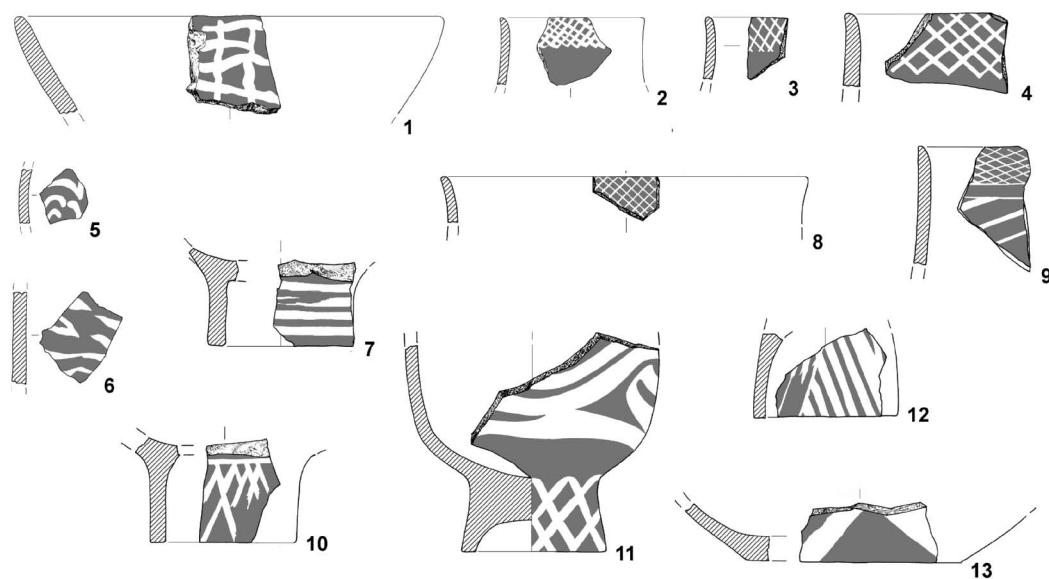


Fig. 14. White-on-red painted sherds from Sector Northeast.

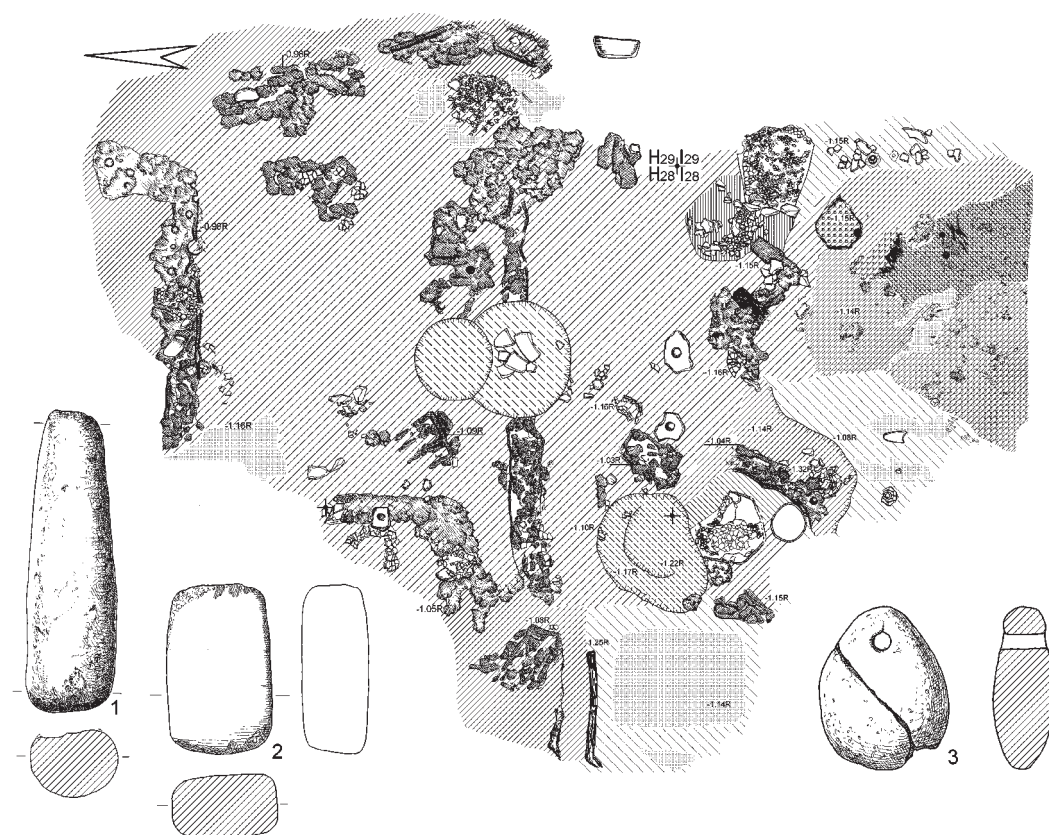


Fig. 15. Sector Northeast. Dwelling in squares H27-28 and I27-28, third building level. Small finds from the dwelling. Nos. 1, 2 – Scale 1:4; 3 – Scale 1:3.



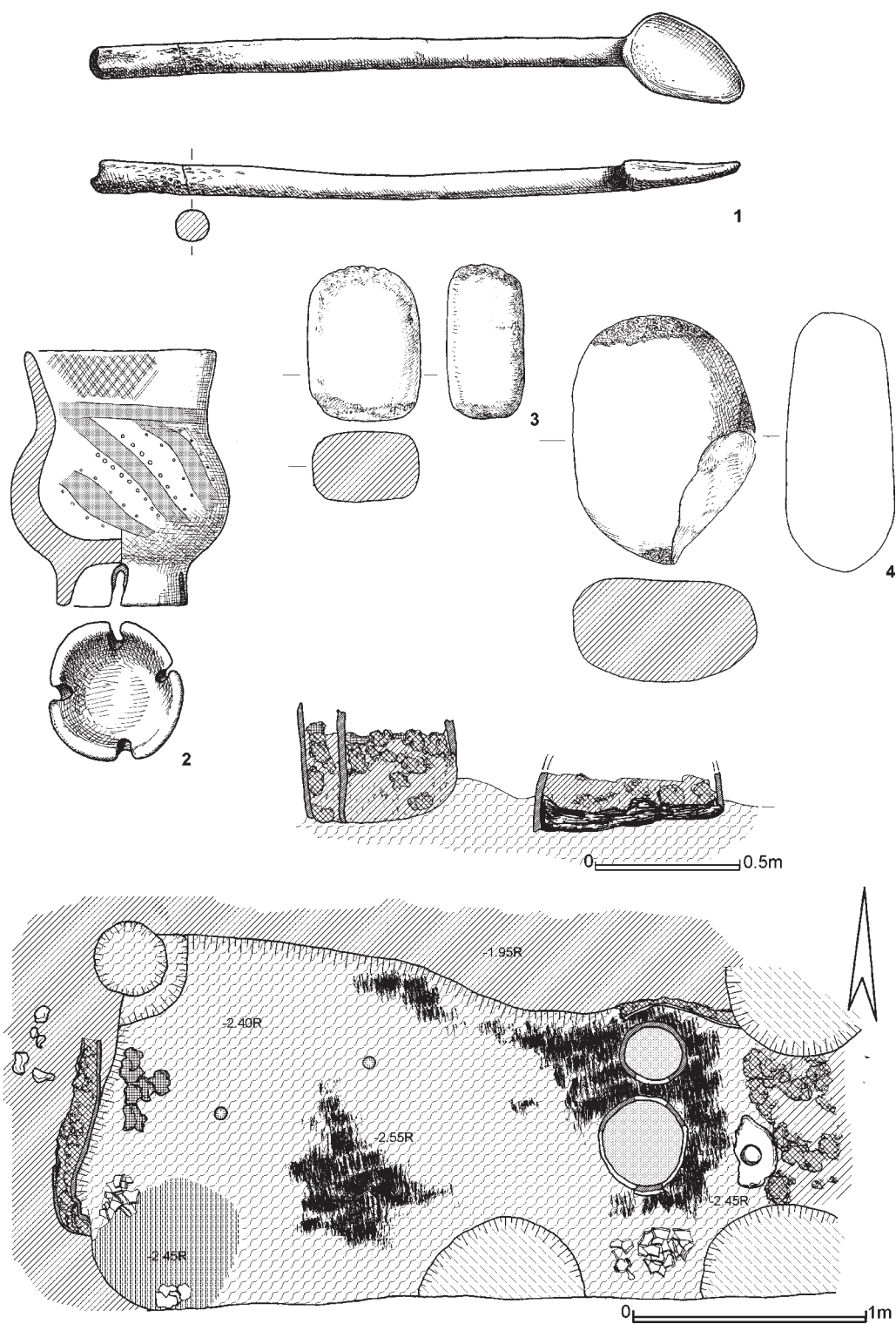


Fig. 16. Sector Northeast. Dug-in structure in squares K40-41 and section of the two pithoi. Small finds and pottery from the structure. Nos. 1, 2 – Scale 1:2; 3, 4 – Scale 1:3.

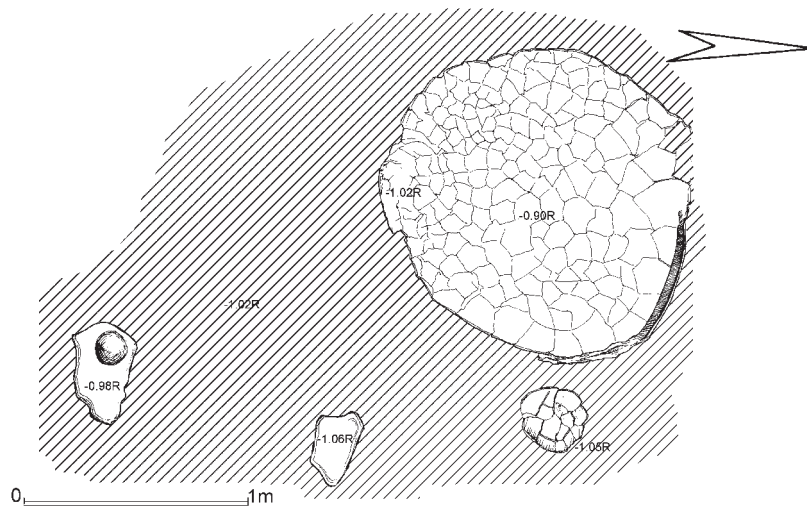


Fig. 17. Sector Northeast. Freestanding hearth in sq. I31, first building level.

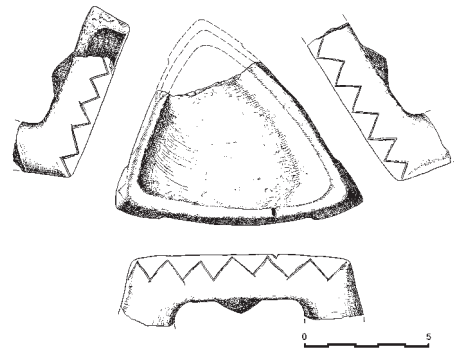


Fig. 18. Sector Northeast. Tripod in a shallow pit in sq. K39.

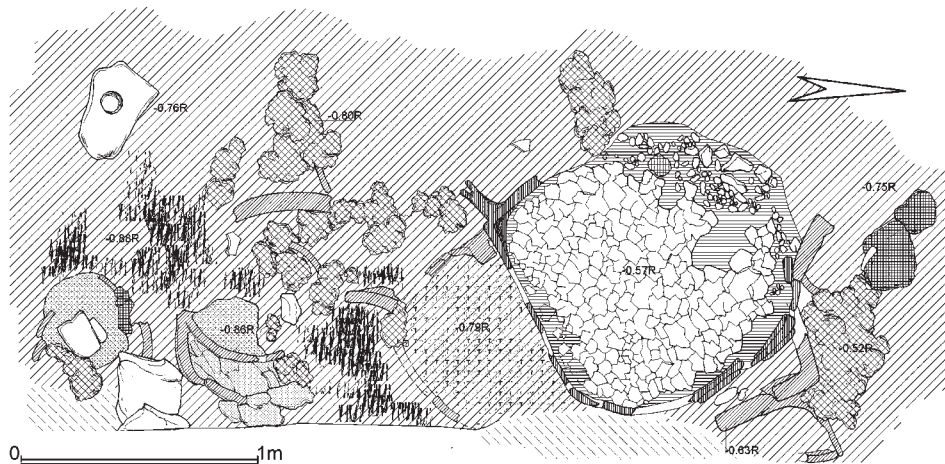


Fig. 19. Sector North. Dwelling in squares I36-J36. Detail.

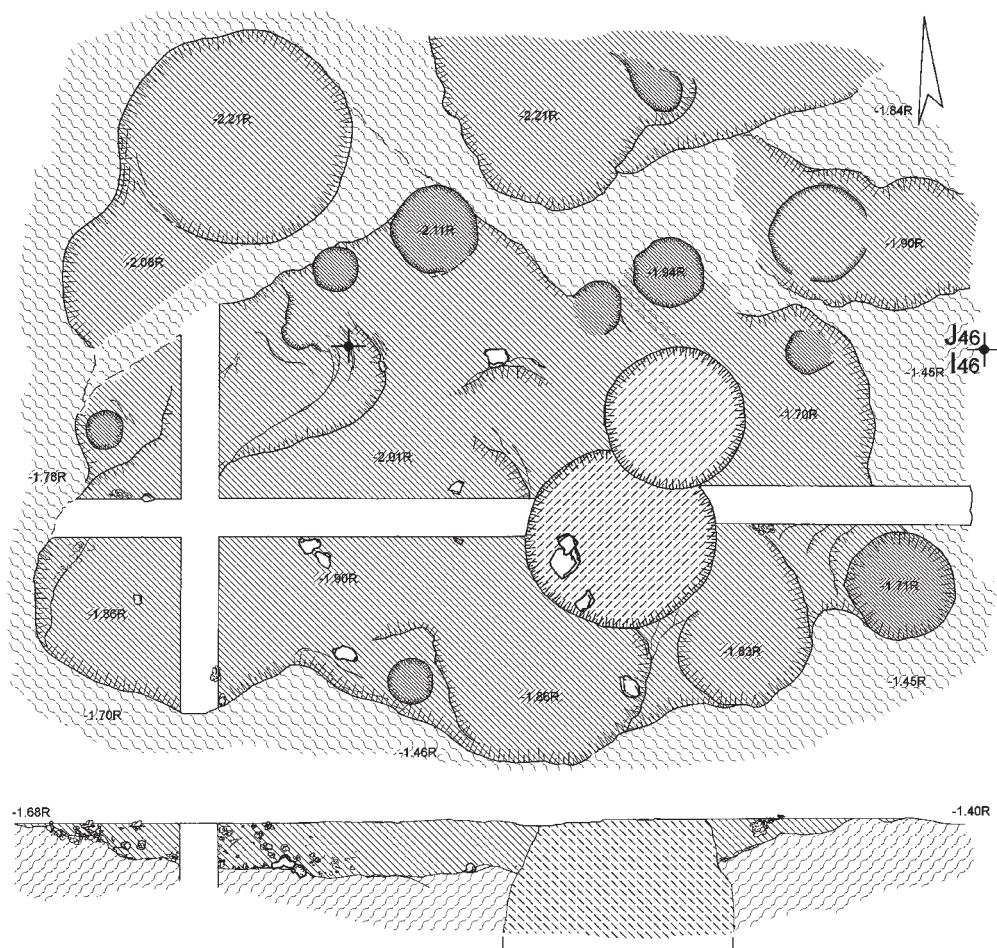


Fig. 20. Sector North. Semi-dug structure in squares I46-47 and J46-47.

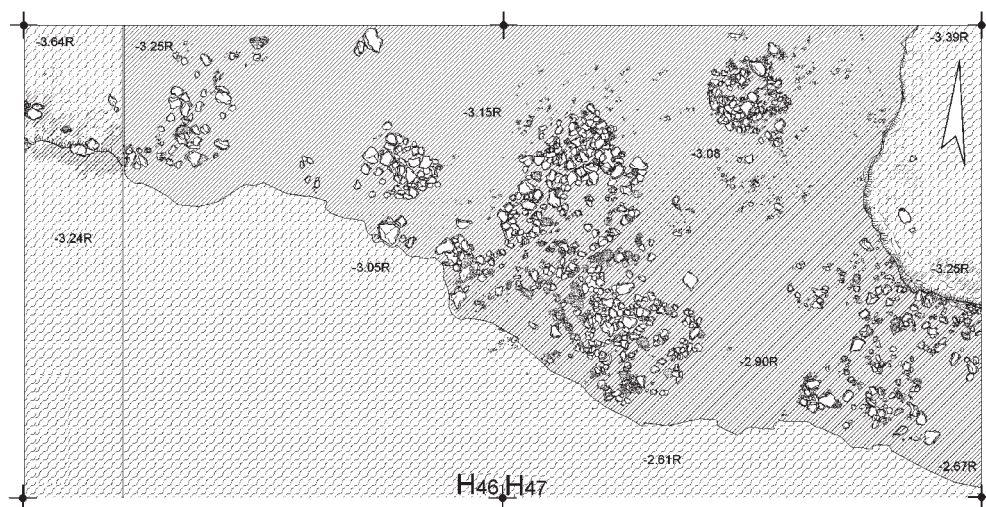


Fig. 21. Sector North. Remains of stone foundations in squares H46-47.



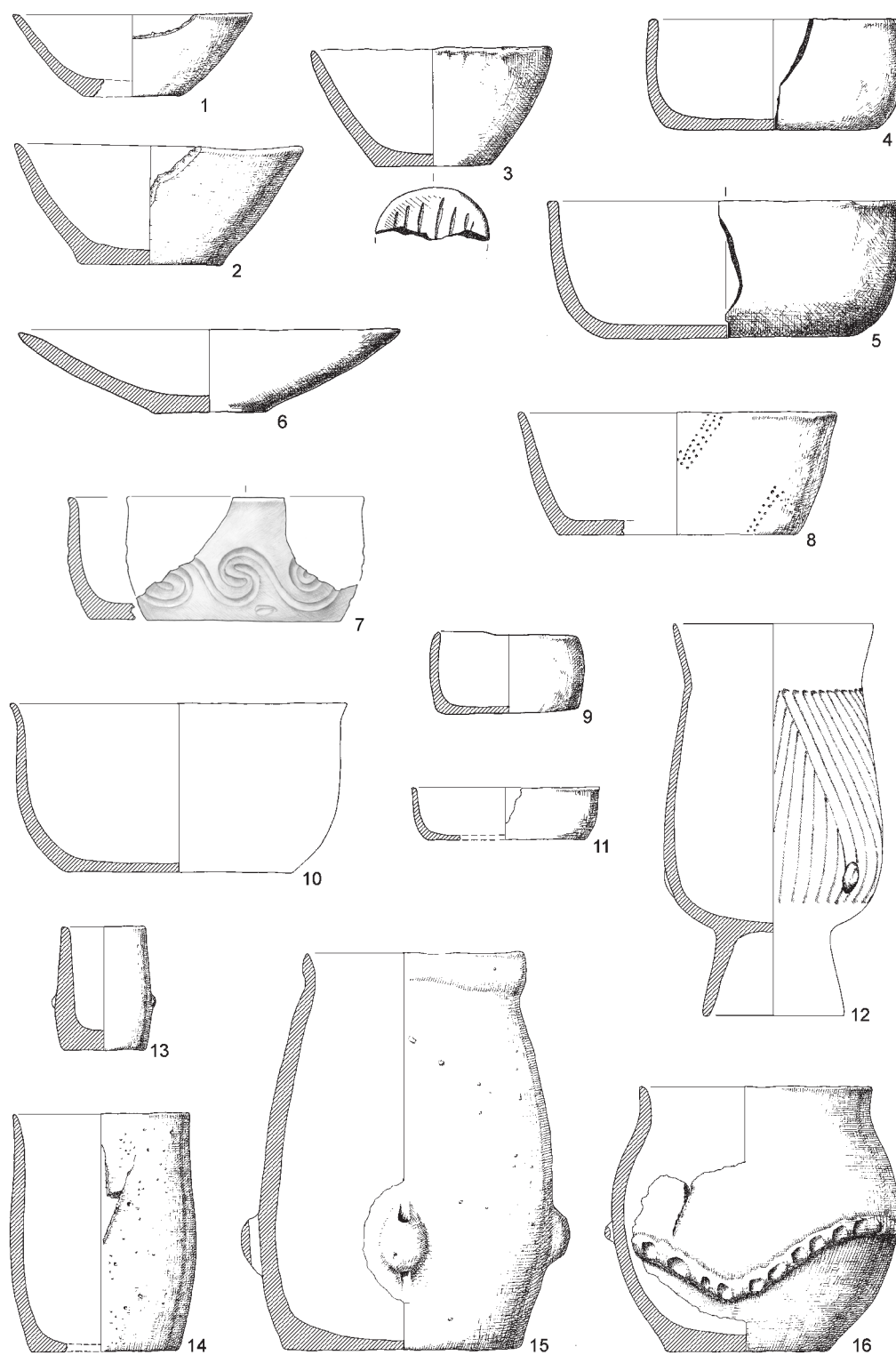


Fig. 22. Pottery from Sectors Northeast and North. Scale 1:4.

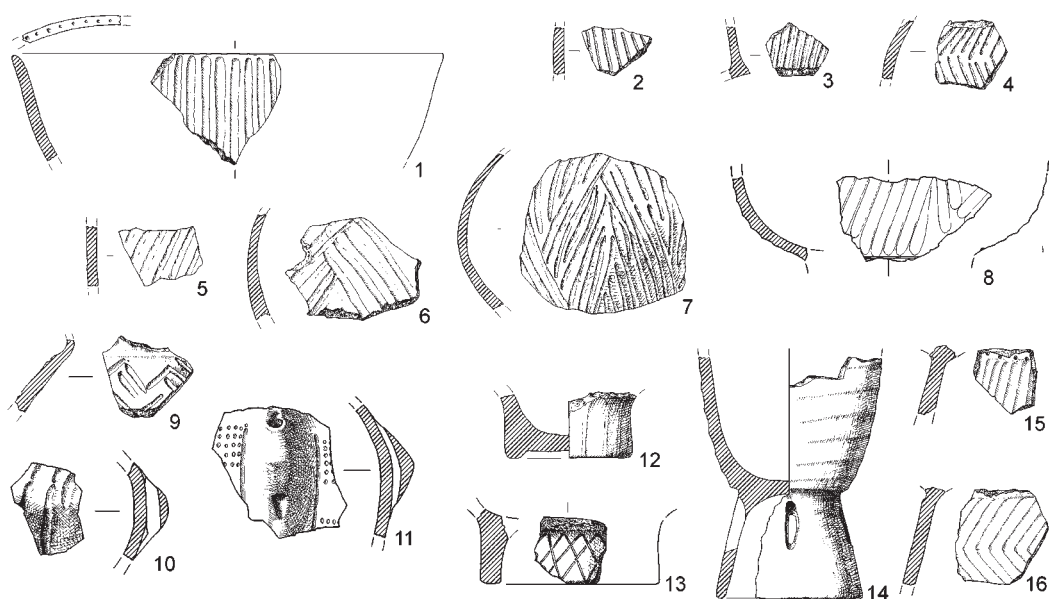


Fig. 23. Pottery with fluted and incised decoration. Scale 1:4.

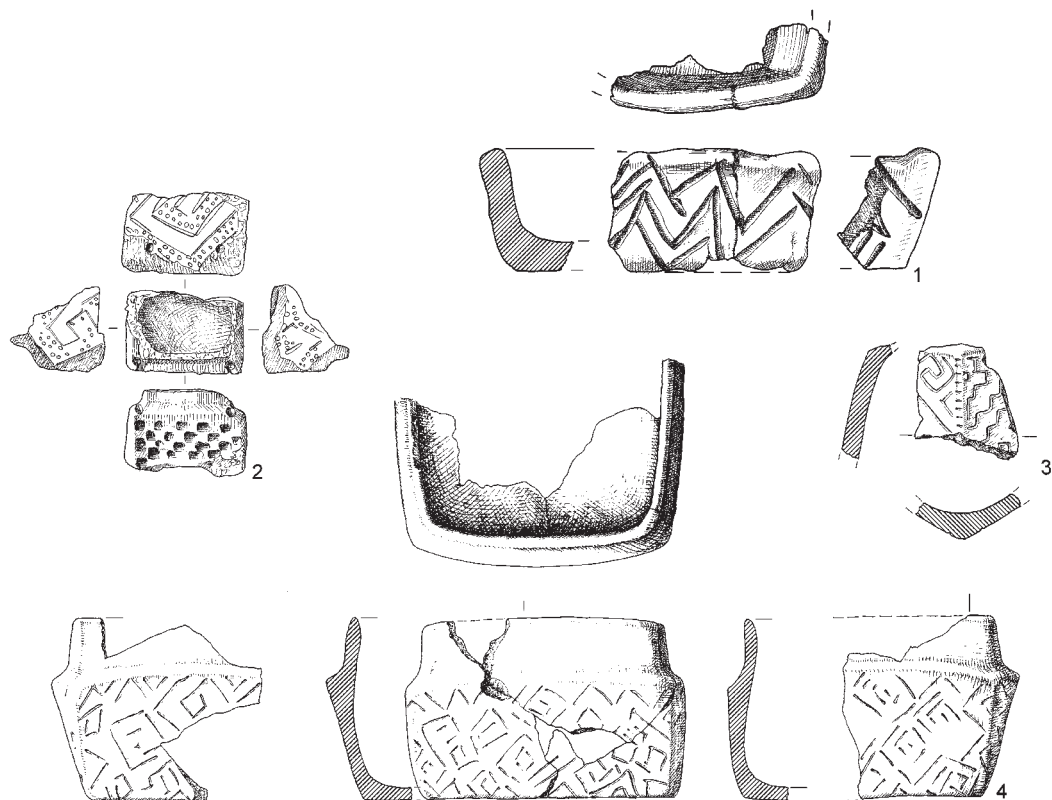


Fig. 24. Rectangular vessels and containers. Scale 1:3.



Fig. 25. Stone tools. Nos. 1-14 – Scale 1:3; 15-18 – Scale 1:4.

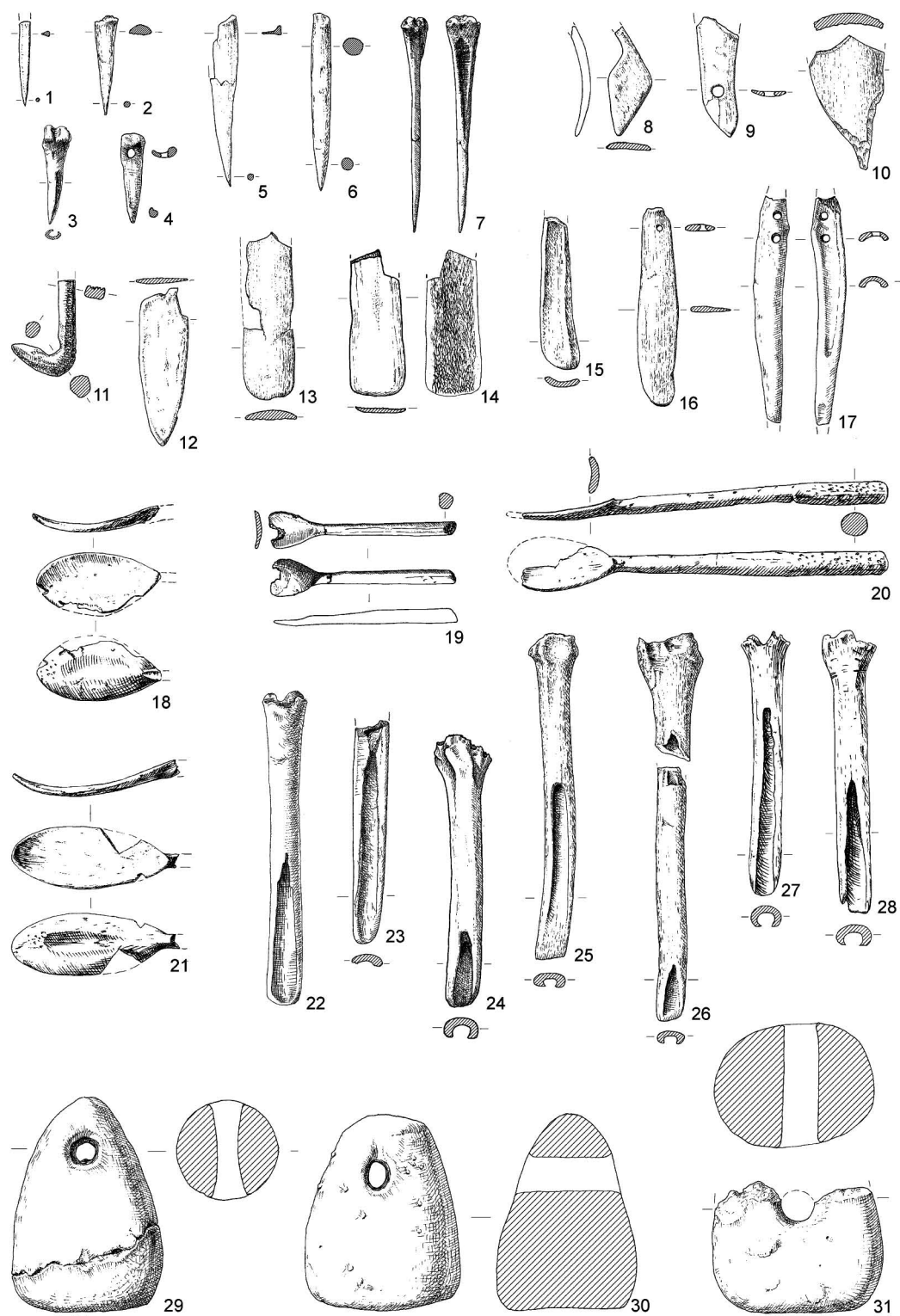


Fig. 26. Bone and terracotta small finds. Scale 1:3.

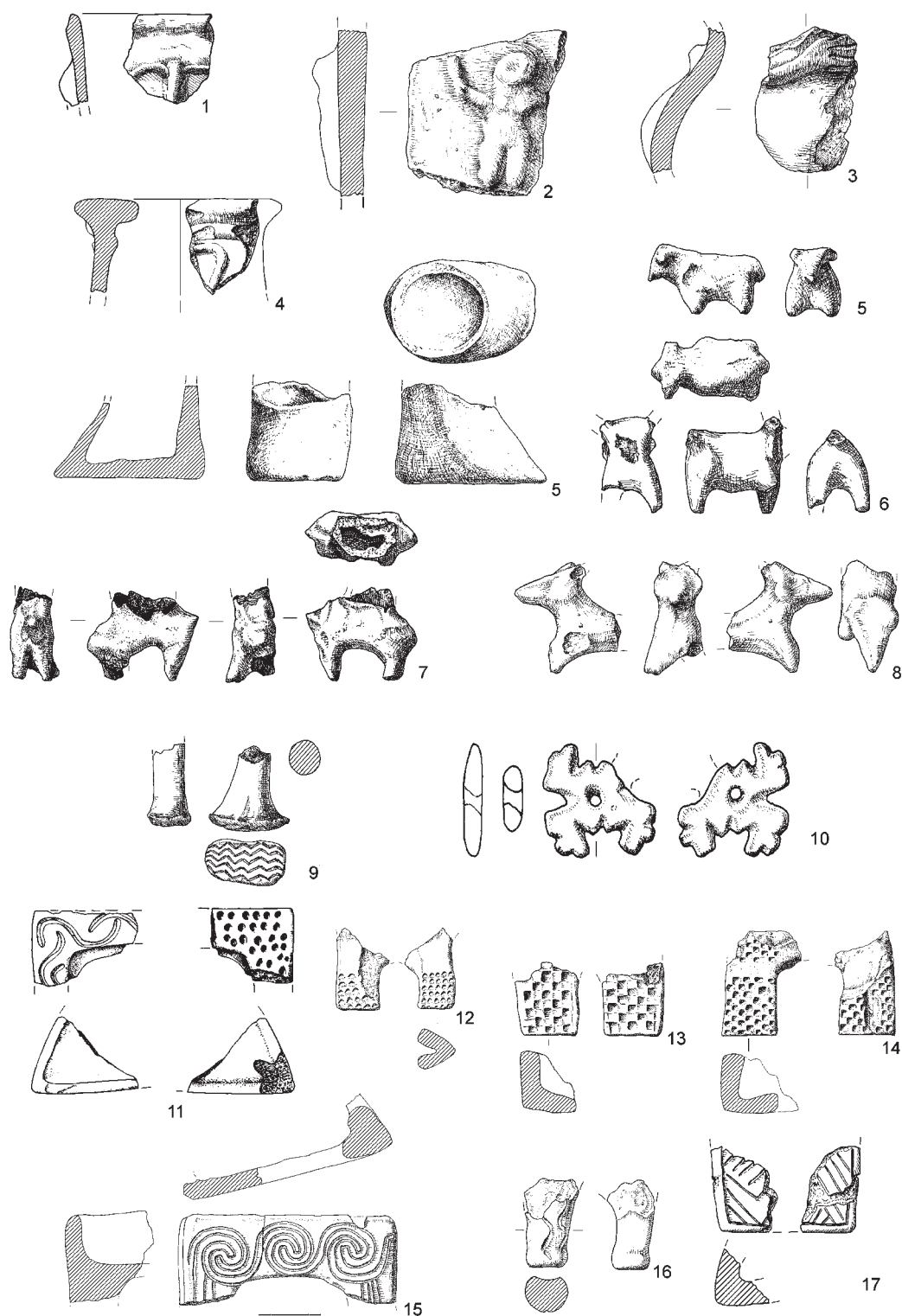


Fig. 27. Small finds. Nos. 1-8 – anthropomorphic and teriomorphic figurines (Scale 1:3); 9 – clay stamp (Scale 1:2); 10 – stone pendant (Scale 1:2); 11-17 – tripods (Scale 1:5).



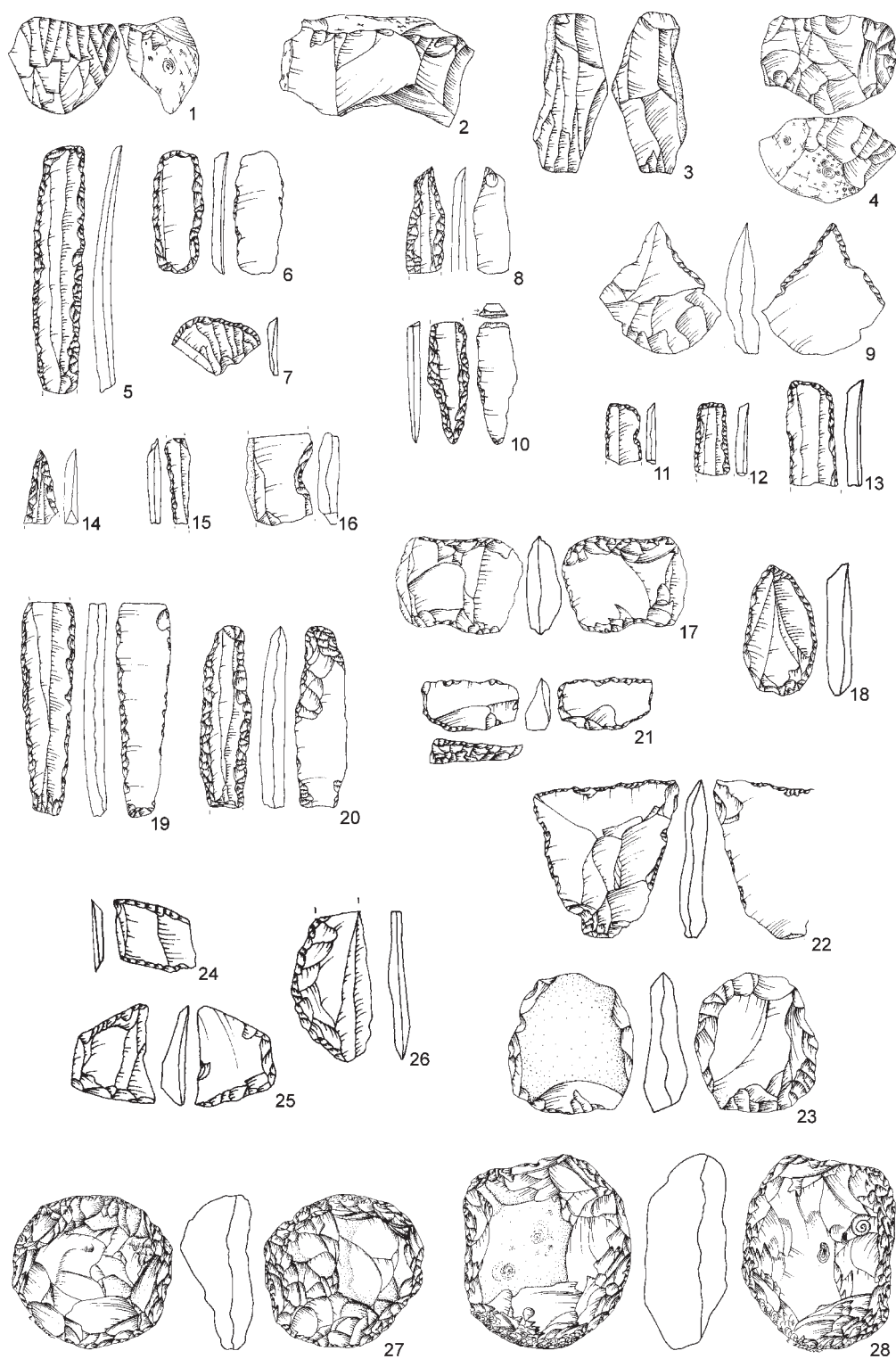


Fig. 28. Flint nuclei and tools. Nos. 1-3, 5-22 – Scale 1:2; 4, 23, 27, 28 – Scale 1:3; 24-26 – Scale 1:1.



## **FELT PRODUCTION AT THE VILLAGE OF ÇATKÖY<sup>1</sup>** **An Ethnoarchaeological Examination**

*R. Marchese*

Material objects provide immediate information about human culture – production methodologies, artifact distribution on a site or in a region, and general information about social and environmental adaptation to name a few. In order to understand such concerns cultural anthropology and ethnography are necessary disciplines in the study of the past since they share a common goal – to explain patterns of human behavior in material culture (Takaoğlu 2004 and 2005 and Ember and Ember 1973). Hopkins (2004: 41) clearly states this point – “... to address specific questions of contemporary behavior... in order to elucidate the processes of material culture production, use, discard, and preservation... [which] allows an interpretation of the material remains which constitute the present day archaeological record in terms of past patterns of behavior”.

There are, however, differences between archaeology and cultural anthropology. In a traditional archaeological culture, artifacts, no matter how we define them, are detached from a living culture by time and only appear as a remnant of past life ways. Since human behavior is reflected in material culture (Cribb 1991: 4 ff and Schiffer 1976), common ground exists between archaeology and anthropology (Redford 1998). Hopkins (2004: 41) again makes this clear in that there is an inherent link between the two – “one starts with archaeological research interests, goes to ethnographic data for formulation and/or testing hypotheses, models and/or theories about these interests, and then returns to the archaeological record to implement the understanding gained from the ethnographic data”. Yakar (2004: 7) supports this view: “... the reconstruction of the social and economic organization of ancient... communities... can be better achieved by studying and interpreting the relevant material culture... recovered from their respective settlement using local and regional ethnographic records.” Such views, however, are valid only when there is a clearly defined archaeological question that can be enhanced by ethnographic observation. Unfortunately, limited survival of artifacts and the functional parameters of material objects observed in a living context may not be evident in an archaeological culture (Cribb 1991 and Marchese 2005, 2005a, 2001, 1995, and 1994).

<sup>1</sup> Çatköy is situated east of Karaman at the edge of the Konya plain near Ayrancı in the northwestern Toros mountains at an approximate elevation of 2000 meters. Three kin related villages exist above the modern Ayrancı *barajı* in the Musa Dağı-Orta Toroslari region where seasonal streams and rivers have cut the landscape with deep troughs and ravines. Above the channels, which are prone to flash flooding, the mountain zones are either barren or possess thin top soil. Dry farming is difficult and the arid environment offers little additional vegetation for animal husbandry. It is only in the deeper gorges that water, arable soil, and adequate vegetation are available in order to sustain sedentary and semi-sedentary habitation (Figs. 1 and 2). For a more detailed discussion see Marchese (2005 and 2005a).

If we broaden our definition of *artifact* to include human diet, preparation and /or exploitation of food sources, land use, etc., some general observations can be stated for those strategies which focus on intensive hunting and gathering techniques, the herding and management of animals, and the exploitation of limited agricultural resources (Stein 1998: 182-209 and Diler 2004: 55 ff).

### **Ethnoarchaeology: a definition<sup>2</sup>**

A definition of ethnoarchaeology is necessary in order to clarify the nature of archaeology in an ethnographic context. Yakar (2004: 14) provides a working definition – the nature of ethnography and its association with archaeology “... is to provide a tentative reconstruction of the nature of human societies whose material culture remains are the outcome of their activities, skills, needs, and spiritual beliefs.” Although Yakar offers a precise view of archaeology and ethnography as integrated disciplines, he adds little to Taylor’s (1948) statement that archaeology is anthropology or it is nothing at all! Although not without controversy, Taylor’s (1948: 43) comment was, and still is, important, especially for those who emphasize a more anthropological approach to archaeology – “... that archaeology is no more than a method and a set of specialized techniques for recovering cultural information.” In this manner an archaeological culture should not be divorced from the living context of anthropology and ethnography, that is archaeology and ethnoarchaeology are methods of studying people and cultures. Hopkins (2004: 39) offers further support for this view in that “... divorcing of archaeological remains from an investigation of the people who created them, has resulted in a comparative neglect of the ethnographic or human side of the discipline. The ethnoarchaeological approach attempts to bridge the gap between material and behavioral aspects of antiquity and to draw material culture studies back towards analysis of underlying patterns of human behavior.”

### **An archaeological problem**

Modernization has transformed many parts of the Mediterranean. This is especially evident in Turkey. Surveys in and around ancient Caria, Lycia, and Cilicia, (Carpenter and Boyd 1977, Marchese 1986, 1989, 1992, 1992a, 1994, 1994a, and 1996, Konecny 1998, and Rauh 1998) have produced a wealth of data, including the identification of previously unknown watch towers, fortified sections of ancient roads, economic processing locations (especially olive oil and wine production), and in some cases the ancient remains of nomadic encampments and/or seasonal occupational sites (Carpenter and Boyd 1977, Cribb 1991, and Diler 2004: 55 ff). Archaeological surveys, however, have not addressed deeper issues of observed human behavior and culture that

<sup>2</sup> For a more detailed discussion see Takaoğlu (2004 and 2005).

still survive in rural Anatolia (Marchese 2005, 2005a, 2001, 1995, 1994, and 1991). Takaoglu (2004: 27) points out the failure of previous archaeological enterprises – “... the study of pastoralism or pastoral nomads is one of the most neglected fields in Anatolian ethnoarchaeology... ‘the need that more ethnoarchaeological investigations must be carried out on pastoralism before this way of life is completely gone out of the ethnographic record of the Near East.’” Yakar (2004: 4 and 9) adds that “... Anatolia is still quite rich in providing... ethnographic models pertaining to traditional modes of agriculture, animal husbandry, and herding. In addition, settlement patterns of rural communities in topographically and climatically different habitats provides for wide-ranging socio-economic models that can be of paramount importance to understand the choice of similar habitats since prehistoric and proto-historic times” (2004: 4) and that “... although in modern Turkey large tribal organizations no longer exist, the smaller dispersed tribal groups and large village communities living in the less industrialized parts of the country have succeeded in preserving not only cultural features of their ethnic identities, but also many of the deeply rooted forms of social organization and subsistence strategies.” Although Yakar argues that such groups should be defined as “marginal, living at the edge of civilization”, their impact on sedentary societies, many of which are kin related, is not to be minimized since such groups offer specializations that are no longer available or only partially evident in village-based economies.

In order to put a physical face on the aforementioned comments this paper will touch on a limited examination of a specific category of material culture, the manufacture and use of felt in the village of Çatköy. Hopkins (2004: 42) points out that “... modern data relating to aspects of demography, social organization, and economic strategies, and utilizing such data to explain patterning in material culture, both ancient and modern...” has relevance in understanding the basic components that make up an archaeological culture. In this manner the village of Çatköy provides an excellent case-study in order to clarify the traditional manufacturing techniques in felt production and the functional use of the product in an observed, living context.

### **Ethnographic observation: village profile and an archaeological link**

Turkish villages arguably can be interpreted as an extension of nomadic encampments that have attained a higher level of permanence beyond seasonal habitation (Cribb 1991). Although a variety of definitions can be stated for what constitutes a village, Hopkins (2004: 47 ff) offers a rudimentary explanation that is easily understood – “... [the] contemporary village... consist[s] of dwellings for human occupation, shelters for animals; storerooms; access to water; fields and pastures; public or communal areas... the bulk of shelter and subsistence needs are produced within the village itself” and “... as with the archaeological record at most sites, the vast bulk of ancient material that survives ‘*in situ*’ is the architectural remains. Stone, mud-brick... domestic architecture elucidate the minutiae of daily life experiences... items of material culture which contribute to our understanding of ancient resources include space for fishing nets, grinding stones for processing grains, heating and cooking facilities, and craft items for working with wool

and leather... animal husbandry is the most important economic activity undertaken by modern villagers, ... in terms of ideology and social value, if not purely financial measures” (2004: 43-44). This “archaeology of the house” as Yakar states (2004: 7) “... formed an economic production unit even if they might have been part of an extended family.” External influences, however, alter villages and, consequently, “it is not possible to find a village that shares a physical and social environment, a technology, and a demography with a medieval Islamic village, let alone a prehistoric one” (Hopkins 2004: 42). Although we should not expect villages to be static, there are factors that limit or retard development, as Hopkins (2004: 42) again states “... villagers live a life that is constrained by similar elements to those faced by those [ancient] occupants... who dwell here throughout antiquity... a rugged, mountainous terrain... harsh climate..., and pastoral economy, with a traditional technology utilizing local resources remains in place. Stone houses, dung-fired clay bread ovens, subsistence pastoralism and agriculture, ceramic cooking vessels and wooden agricultural implements are all contemporary, visible reminders of a long history of self-sufficiency in these remote mountains.”

The village of Çatköy was examined as if it was an archaeological culture fixed in time in order to understand the function and use of artifact classes, the use of space, the storage of surplus, the manufacture of physical objects – mostly utilitarian, and the general economic parameters that influenced community life. Due to limitations in the environment, animal husbandry is an essential element in the village economic system. Mixed herds of sheep and goat provide a variety of foodstuffs – meat, cheese, and milk as well as wool and hair. In this manner animal husbandry supplements a more marginal agrarian system that is prone to crop failure. The exploitation of a sheep/goat economy, however, should be viewed as a managerial economic structure since selective culling of the herd and the size of the herd are dictated by environmental conditions and human managerial skill.

Of the three villages named Çatköy, the primary village was examined in 2004. The remaining two, although kin related, were not. These lay to the east of the primary village at a distance of ten to twelve kilometers. The village was constructed of stone with limited use of wood and was laid out in a linear pattern, primarily situated along two crossing paths below the crest of nearby mountains. The location of the village was determined by easy access to water, primarily supplied by a number of natural springs. The site was also well-sheltered from cold winds. Çatköy is surrounded by abandoned ancient animal pens of rubble masonry (and long since re-used wood and brush) with no visibly associated village in the immediate vicinity. These were probably the residual features of semi-nomadic groups who migrated through the region as early as the 16<sup>th</sup> century.<sup>3</sup> The village contained approximately 100 houses, most of which were two story

<sup>3</sup> The inhabitants of Çatköy stated that they “were *recent* immigrants from ‘Arapistan’ and settled in the region in the early to mid 19<sup>th</sup> century” as part of the Ottoman government’s relocation polities. The elders of the village insisted that they were not from the Toros mountains or eastern Anatolia. They had, however, intermarried with both Türkmen and scattered *yörük* groups, primarily Sarıkeçili. Much of the traditional clothing was still worn by the older women of the

structures, multi-room living quarters on the top level with storage areas below. On both levels and in every structure examined felt floor coverings and an assortment of felt pads were used in the living areas in order to insulate the upper floor from cold and dampness in winter and summer as well as placed on earthen floors in the lower level in order to protect stored essentials, especially grain, from damage by moisture. Although a unique form of material culture that leaves no trace in an archaeological context; felt was produced in substantial quantity in order to meet family needs (Figs. 4 and 5).

Although much of the material culture in the village reflected animal husbandry as the sustaining economic system; it is in the manufacture of felt objects that makes the village unique. Felt production was common in antiquity and no doubt pre-dates weaving and possibly a limited assortment of other fiber based products. This would be especially evident in those colder climes of the ancient Near East, especially in the natural habitat zones of sheep and goat in the Zagros mountains and in eastern Anatolia. Warm and durable, felt provides a soft cushion for bedding, floor covering as well as padding for animals and humans. Lighter weight felt was also common for human apparel, especially in those areas where wool production was exceptional in antiquity such as northwestern and western Anatolia. Used along with skins, spun fiber, and fleece, felt possesses a number of advantages over competing products. It is wind proof, water proof, and retains heat better than fleece and woven cloth. The making of felt is less labor intensive than woven goods produced on either a vertical or horizontal loom. Its functional value may also be higher due to its warmth in winter and its ability to absorb moisture in summer. Depending on the density of the felt, heavier types are less capable of being made in large dimensions due to their excessive weight. In general felt based material objects are durable and can withstand heavy wear over the course of continuous use (Glassie 1993).

Felt production at Çatköy was integral to family needs with no apparent division of labor employed since men as well as women were involved. Sheep were sheared twice a year – in June or late Spring and in August and/or September or early Fall. After shearing, the wool is washed, cleaned, and its fiber separated and fluffed by hand prior to re-compressing into felt. Dimensions are determined by place of use and/or function with those items produced for the home measuring 3.5 x 1.75 meters for large areas and 1 x 2 and 1.5 x 1.75 meters for either personal use or smaller areas. The smaller pieces were used for either floor covering between rooms, for bedding, and as apparel, the latter employed as a wrap on the body in case of muscle injury. Such pieces helped retain body heat on the area of injury. The best wool was from immature sheep or yearlings sheared in September. This was used for bedding as well as floor covering while lesser or coarser quality obtained from older sheep during the first shearing in May and June was employed in the lower level as a clean surface for the storage of commodities, especially foodstuffs. When limited quantities of wool were produced from the second shearing, it

village. Headdress and other garments suggest social affiliation with groups from central Asia, the Caucasus mountains, and the Yuntadağ region of northwestern Anatolia (Marchese 2005a and Reinisch 1985) (Fig. 3).

was mixed with the coarser wool from the first. If insufficient amounts of wool were obtained from either shearing, felt was not produced by the family for that year. It was stored until the following year.

One person could fluff between two to four kilograms of wool in a day with five kilograms of fluffed wool being produced by 20 sheep. Decoration was unique since only natural colored wool – black, brown, and white – was used. Designs were geometric as well as floral. Designs were part of the general vocabulary of patterning that appeared in limited ceramic assemblages and other elements of material culture. It can be assumed that in antiquity bold geometric patterning on ceramic assemblages (Tekkök 2004) were duplicated on wool and linen based objects as well. In the felt examples at Çatköy motifs had a long life and should be viewed as *traditional* long after similar designs had disappeared in the broader categories of material culture. Interior space of rooms was not cluttered with physical objects denoting a singularity of use or function. In fact, life was inherently lived on the floor of rooms similar to nomadic encampments with perishable objects of wood and fiber used as furnishings. Layering of fiber based objects on the floor provided not only physical comfort but warmth (Marchese 2005, 2005a, 2001, 1995, 1994, and 1991).

Felt may also have been traded or bartered between villages and nomadic groups – payment based on reciprocating hospitality, as a gift between kin based groups, etc. Although numbers varied greatly, the village maintained approximately 8,000 to 10,000 head of sheep and goats, the majority of which were sheep. Although households possessed mixed herds, the majority of villagers preferred sheep due to the value of the wool. One shepherd could manage approximately 500 head. At least 75 households produced felt. Felt production was a family affair – adolescent males and females as well as adults participated in the manufacture of felt objects. Most tasks were performed by children and young adults. Hot water was used for working and rolling the felt and was an adult concern due to safety. To produce a standard dimension 1.5 x 1.75 meter floor covering that was between ten to fifteen centimeters thick took three hours. Dimensions were determined by the size of the area to be covered. Large rooms contained a number of overlapping pieces. When extra wool was available a second layer of felt was added to the previous covering with new production placed on top in order to create a clean surface.

Felt was made in the following manner: (1) the design or pattern was laid out on the floor on top of a cloth, a reed mat, or a felt pad of equal or greater dimension, (2) two layers of fluffed wool, approximately 30 cm. thick compressed into 7 cm. (for a thicker surface additional layers are added) were placed on the mat and lightly pressed in place, (3) hot water (animal fat or soap added as a binder) was applied after which the saturated wool was lightly beaten in place with long flexible wooden sticks, (4) once the desired shape was achieved, the wool was rolled up and compressed by walking on the container, (5) unrolled and patted with hands or with long rolling pins that were also used for making bread, and (6) the finished product was lightly washed, cleaned, and sun dried. In the house of Mustafa Köşşek, 61 (Fig. 6) felt was produced based on family need and how much wool was available, the latter depended on the amount of lamb's wool



collected during the second shearing. Felt pads and blankets were also made for horses as well as donkeys.

Designs, most recently floral, featured a variety of geometric forms – circles, curvilinear and linear patterns reflected conflicting views of Nature and the continuity of life. There was no general consensus of design or format in pattern during the process of making felt. Some patterns continued in use while others dropped out of the collective vocabulary, perhaps no longer empowered as sacred symbols. Since there was no general structure in felt production to inhibit creativity, that is the lack of warp and weft, an infinite number of designs could be created. Patterns, however, may also be divorced from any specific meaning and are purely repetitious with no reason for producing a specific design. As of Mustafa Köşşek's daughter Kıymet stated "I make this because my mother made it".

### **Material culture in an archaeological context**

Outside of the shared architectural schema of the village, the general floor plan of domestic buildings with or without courtyards, and materials employed in house construction, including permanent architectural features, much of the material culture of Çatköy was perishable, especially fiber based products such as felt, a primary element of village material culture. The "archaeology of the house" has to take into consideration a number of issues – how space is defined, the human variables that are evident in the use of space – that is spatial definitions were determined by social factors that were embedded within the family, from the preparation of food, food consumption, receiving guests and family members, to sleep; at each level a different material culture was employed. The majority of the domestic material culture observed at Çatköy leaves little or no physical residue of such life processes. The manufacturing of felt and felt objects are basic elements of human culture in sheep producing regions. It is the simplest way to use wool without the laborious process of spinning and weaving. No elaborate or extensive material culture is needed in order to produce felt for bedding, wraps, pads, or apparel. The product is durable, wind proof, water proof, warm as well as cool. What is needed is space, primarily open areas that can accommodate the process of manufacture. Basic and easily obtainable materials are employed – wooden sticks and any type of container for storing and heating water. The natural color of the wool, white brown, and black, was used at Çatköy. These were arranged in a variety of geometric shapes and floral patterns (Figs. 7-9). Designs were shared in other categories of material culture, especially in locally produced ceramics, wood carving, and engraving. The separation of designs into isolated categories of material culture are immaterial since symbolic patterning indicates communal affiliation, kinship, family, social status and human sexuality and, consequently, are shared across the entire cultural assemblage.

## Conclusion

Land use, settlement patterning, and division of labor based on age and gender, are observable in physical locales. Spatial issues, especially those that deal with the maintenance of large herds and, correspondingly, extended families, inscribe on the landscape a specific pattern of communal existence comparable to an archaeological site. As Hopkins (2004: 52) states "... the excavated site is not the same as the functioning site... examination of a functioning community can contribute to our understanding of how material culture moves from being an integral part of a functioning community to its existence as an archaeological assemblage." Excavations can provide the general pattern of human life and gender related activities through artifact analysis (Cribb 1991). Excavations, however, are not the end result in such an examination since ethnographic analysis provides a detailed image of a living culture undergoing continuous change.

The material remains examined in this paper are not just lively expressions of artistic achievement and general aesthetics. They are an integral part of social organization and identity. The material possessions of rudimentary sedentary communities were never meant to survive beyond the course of one generation since their utilitarian nature predicates their employment in the daily ritual of living. At Çatköy felt was widely used in domestic buildings and served a number of functions: (1) in the upper level of structures as floor covering in order to provide warmth, (2) as a covering in the lower level to keep bulk commodities off the damp earthen floor, (3) used as pads and blankets for humans and animals, and (4) as apparel (Fig. 10). The manufacture of felt requires no special tools and those items that are used are either consumed as fuel or serve alternate functions. Designs on felt are part of the interconnected decorative patterns shared in the broad cultural assemblage of the village. No special symbols or patterns were used exclusively for felt.

As stated earlier, Turkish villages arguably can be interpreted as an extension of nomadic encampments. Modern villages consist of domestic architecture, storage areas for surplus goods, animal shelters, usually outside the village as well as public or communal areas. As an economic unit "... the modern village provides an analogy for the possible functioning of the ancient community" (Hopkins 2004: 52). Constraints, however, exist in both interpreting observable data in nomadic encampments as well as in a rudimentary sedentary setting. Human culture is not immune to change. Response to the environment, more efficient methods of exploitation, adaptation of non-indigenous ideas or production methodologies, new economic markets – regional, sub-regional, and international – impact groups no matter how we define them. The value of ethnographic analysis in an archaeological context is to observe current patterns of human action and reaction in context, both human as well as natural. In an ethnographic context material culture provides observed patterns of human action and can be employed in an archaeological context if there are comparable cultural features. In this manner ethnography and archaeology have a common goal – to explain human culture in time and space.

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Fig. 1. Barren and arid landscape of the northwestern Toros mountains – Musa Dağı and Orta Toroslar. Elevation is approximately 2000 meters. Seasonal streams and rivers have cut the landscape with deep troughs and ravines. It is only in the deeper ravines that natural springs and wells sustain life.



Fig. 2. Limited dry-farming takes place at the lower elevations and plateaus with crop yields dependent upon available rain and/or snow. Herds forage close to the village where water is available due to natural springs and wells.





Fig. 3. Village headdress indicates social affiliation with groups from central Asia, the Caucasus mountains, and the Yuntdağ region of northwestern Anatolia. Three villages make up Çatköy. Only one produced a unique assortment of felt objects, mostly floor coverings, not duplicated elsewhere in the region. Dwellings are multi-level and are constructed of stone since wood is scarce.



Fig. 4. Each family produces felt for domestic use. Patterns vary from household to household, but are mostly shared among the villagers. In this manner the collective patterning functions as a social marker and visual identifier for the village. Upper level of houses feature layers of thick felt matting. New coverings are placed over previous pads. Since the production of large felt mats is difficult, smaller pieces are produced and placed either end to end or overlapped in order to cover the spatial limits of the room.





Fig. 5 and 6. Interior room in the house of Mustafa Köşşek, 61. Felt pads lay below machine made carpets and pillows placed along the wall. Felt padding prevents moisture and cold from seeping into in the interior space of the room. Felt is also used as a lining or foundation for thin carpets.



Fig. 6





Figs. 7, 8, and 9. A variety of floral patterns appear on felt flooring coverings of various size and shape. Depictions of Nature are quite common. Note Fig. 10 which depicts the high mountains of the region. Floral patterns are supplemented by a variety of geometric patterns, many of which feature substantial open areas in the general scheme. Personal preference and the availability of adequate supplies of colored wool dictate the complexity of the design

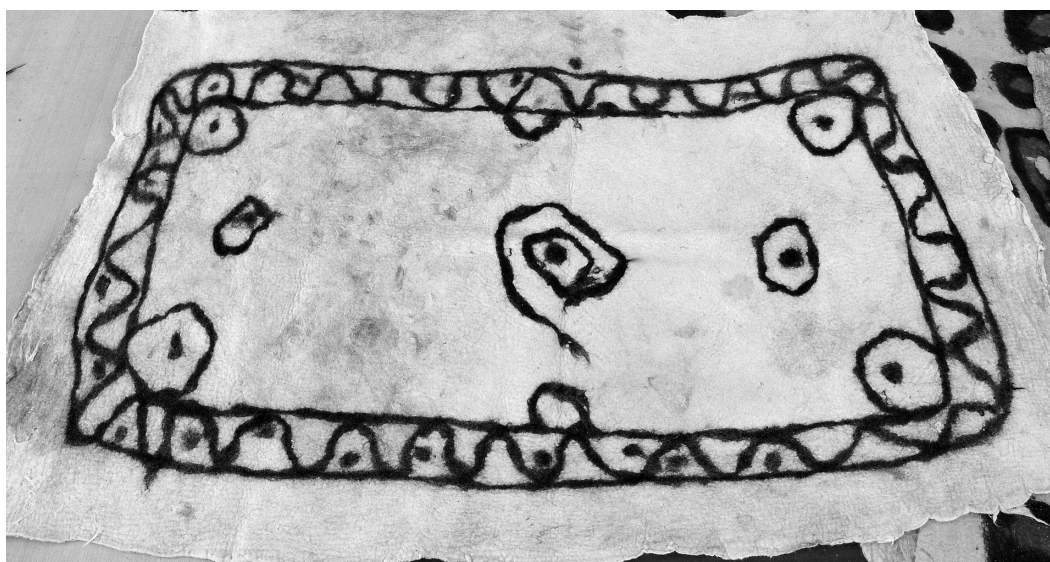


Fig. 8

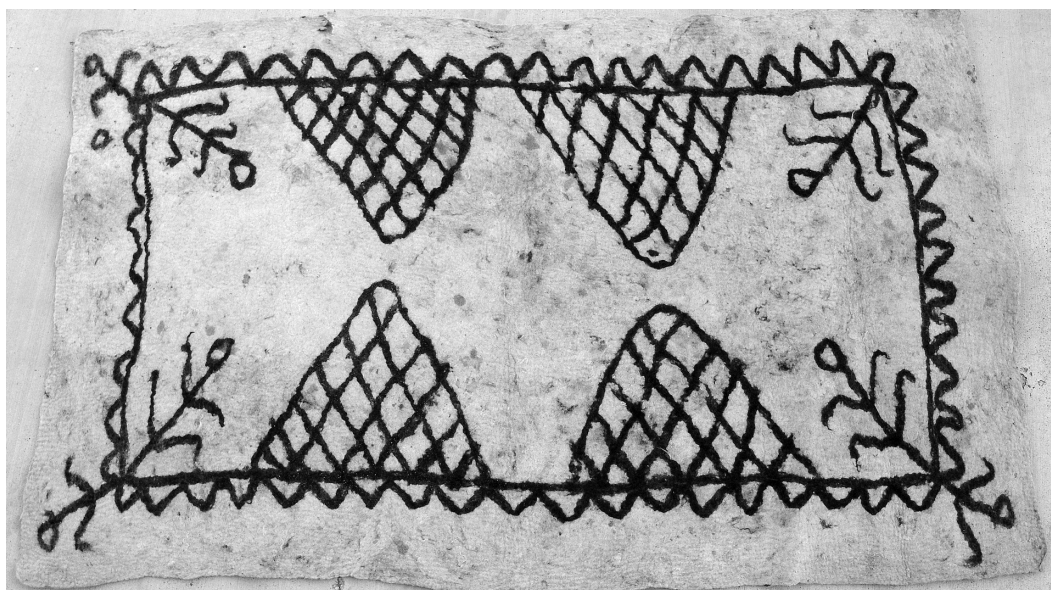


Fig. 9